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INSIDE DOPE

by GEORGE F. TAUBENECK

Story of the Week
Add Sports Stories
Joe Louis, Gentleman
What's Good for the Industry
Is Good for All of us
A Package, All Right

Story of the Week

Novelist Louis Bromfield "covered" the 1948 Republican convention in Philadelphia for a newspaper syndicate. A devout believer in American Free Enterprise, a good Republican, and a loyal Ohioan, Bromfield was prepared to cheer Ohio's Senator Bricker when the latter nominated Ohio's Senator Taft for the U. S. Presidency.

Bricker's ghost-written nominating speech was in the flamboyant style, however; and while delivering it Bricker pawed the air with windmill gestures which tried even the Squire of Peaceful Valley.

Turning to a fellow-reporter in the pressbox, Bromfield confided:

"I'm told that Bricker has a sock-eroo finish for this nominating speech. When he names Taft, he'll throw his right arm away!"

Add Sports Stories

Versatility is not honored among men—especially when it comes to sports champions. The Public likes simple Heroes. Complexity disturbs the sports fans—as well as all types of leader-followers—possibly because the many-sided virtuoso uncomfortably reminds everybody that the world is too confused, as it is.

Gene Tunney was a great heavy-weight boxer. Licked the idolized Jack Dempsey (a simple, one-track character) twice, and retired undefeated. But Tunney has always been unpopular. Why? Because he was a Shakespearean scholar, a lecturer at Yale, and a friend of George Bernard Shaw and Thornton Wilder. His erudition annoyed the sportsfans. To their way of thinking, a fighter should have no truck with books and culture.

Wise to this psychological phenomenon, the astute handlers of Joe Louis did a great job in creating a legend about their Champ: Louis, the Paralyzer. Louis, the Perfect Fighter. And, yes: Louis, the One-Track Mind, the Dimwit-when-not-in-the-ring.

Being one helluva nice fellow, and appreciating mightily what his backers had done for him, Joe Louis played his carefully-coached role mightily well. Seldom did he say anything, except to murmur politely in response to a salute.

As some of his intimates in Detroit's "Paradise Valley" know very well, however, Louis is actually clever with the words. (And smart with the money, too.)

Four or five of his unguarded-moment rejoinders are classics. Examples:

On the eve of Joe's second bout with Billy Conn, a Detroit sports-writer predicted that the fast-moving Conn would stay out of range of Joe's lethal blows by "getting on his bicycle and running."

Quipped Joe:

"He can run, but he can't hide."

Several days after that fight, which put Conn out of boxing forever, another Detroit ring reporter found Joe, in a "Paradise Valley" joint, stashing away a quintuple order of barbecued spare-ribs.

"Just saw a preview of the film of your last Conn fight," began the reporter. "Oughtta see that picture, Joe. It's great!"

"Why?" mumbled Joe, gnawing away. "It was there. I saw the fight."

(Concluded on Page 13, Column 1)

Frozen Foods Institute Head Buys Steel Plant To Aid Mfr. Members

PITTSBURGH — Purchase of a controlling interest in the Sterling Steel Foundry in Braddock, Pa. by Dr. G. Hodges Bryant, chairman of the executive board of the Frozen Foods Institute, Inc. for the purpose of supplying steel to the institute's associate industrial membership, was announced last week by Dr. Bryant.

Dr. Bryant asserted that the advantage of this move is to take the six participating manufacturers of locker plant items and refrigeration equipment out of the steel grey market and assure them a source of supply.

The names of the members, with the exception of Briggs Mfg. Co. of Detroit, which makes plumbing equipment for frozen food processing plants, were not given out by Dr. Bryant.

Dr. Bryant emphasized that he, himself had put up the money for the purchase of the controlling interest. He added, however, that he had used some of the money entrusted to him for the purpose of buying steel by the associate industrial membership to obtain the foundry and to finance proposed rehabilitation of the Sterling facilities.

This was done with the full knowledge and consent of the associate industrial membership, he averred.

Dr. Bryant underscored the fact that though he is head of the Frozen Food Institute, Inc. and that participating manufacturers are also members, the institute has nothing to do with this transaction.

The institute is a non-profit organization organized to make scientific research of an educational nature on

(Concluded on Back Page, Column 1)

New Table-Top Model Refrigerator Includes Special Door Design

BROOKLYN — A new 3.5-cu. ft., table-height refrigerator that features special type, extended hinges which permit the door to be opened even when the refrigerator is installed flush against a wall, stove, or cabinet, has been announced by Moss Atlas Corp. here.

Called the Moss Atlas "Lo-Boy" refrigerator, the new unit measures 34½ in. high, 24 in. wide, and 22½ in. deep. As optional equipment, a formica top can be provided with the Lo-Boy so that its height will measure 36 in., the same as standard dimension sinks and cabinets. The

(Concluded on Page 25, Column 1)

Price Is Reduced on 'Freon-22' Refrigerant

WILMINGTON, Del.—A reduction of approximately 10% in the price of "Freon-22" fluorinated refrigerant has been announced by Kinetic Chemicals, Inc.

The price cut—fourth for the material in three years—became effective with July 26 shipments.

The reduction was a reflection, company officials pointed out, of economies of greater production made possible by the increased manufacture of refrigeration and air conditioning equipment designed to use "Freon-22." Further lowering of the price in the future, they said, may result if the present trend toward wider use of the material continues.

Equipment using "Freon-22," the company reported, is being increasingly used to obtain the lower temperatures required for locker plants, for the faster freezing of foodstuffs, to raise the production of mechanical freezing units, and for home and farm freezers.

STEEL What's Happening on Prices, Availability

NEW YORK CITY — The United States Steel Corp. raised the price of its steel products by an average of \$9.34 a ton, an increase of approximately 11%, effective July 21.

The new higher prices include a restoration of the average price reduction of about \$1.25 a ton made in April, and in addition include an average increase of approximately \$8.09 a ton.

Many customers will also have to foot substantially increased freight bills under the new f.o.b. pricing system which U. S. Steel has put into effect.

While there has been no major announcement of price increases on consumer durable goods because of the increasing steel costs, it is considered possible that some price adjustments may have to be made.

Say Appliance Firms' Steel Quota Is Cut

NEW YORK CITY — "Serious shortages of electrical appliances using steel as a major component will occur in the Fall," a recent news story in the *New York Times* declares, giving as authority New York representatives of appliance firms who based their forecasts on the fact that producers have been notified by steel suppliers that quotas for the last six months of the year will be cut.

The United States Steel Corp. disclosed that third quarter quotas to appliance producers have been reduced, but did not specify the amount of the cut.

"Fourth quarter quotas have not yet been reviewed," the *Times* quoted a U. S. Steel spokesman as saying, "but there is no guarantee that there will not be a reduction in quotas of all steel users in the fourth quarter."

The *Times* story said that Westinghouse had denied any cancellation of fall steel quotas, but did not deny that reductions have been made. One producer was said to have stated that some reductions are inevitable.

Allocations for Arms Producers Okayed

WASHINGTON, D. C.—Steel industry representatives approved on June 21 a voluntary allocation plan under which 1.2 million tons of steel will be channeled to government defense contractors for arms production during the next 12 months.

The steel products advisory committee, which functions under the Department of Commerce's Office of Industry Cooperation, adopted at a meeting a program drawn up by military officials.

The program just approved is one that will provide steel almost exclusively for military equipment. The O.I.C. already is operating three voluntary steel allocation programs for freight car production, warm air heating equipment, and the atomic energy field.

The program will work out in the following manner: the O.I.C. task committee will assign to steel producers a share of the total military tonnage. When the steel industry has pledged to supply the full amount, the Army will get the go-ahead signal to start placing orders. Clearance must then be gained from the Department of Justice to safeguard against possible anti-trust action.

Once the program is cleared, manufacturers of steel products under contract with the military establishment will be given a list of steel producers who have agreed to set aside part of their production for military purposes. Government orders for steel products will bear a special number authorizing the manufacturer to secure the steel from any of the participating steel producers.

Wilson Preparing To Resume After \$ Million Fire

SMYRNA, Del.—Following the fire July 14 which destroyed plant No. 1 of the Wilson Cabinet Co. here, J. E. Wilson, Jr., president of the firm, announced plans for the immediate establishment of production lines in the company's modern warehouse, where nearly 75,000 sq. ft. of floor space is available.

It is expected that production of some products will be restored in about 30 days. The Wilson Co. manufactures milk coolers, home and farm freezers, and commercial refrigerators. Sales are handled through a national distributor and dealer organization by Wilson Refrigeration, Inc.

Damage to the plant and its contents amounted to approximately \$1,000,000 mostly covered by insurance. Plant No. 2, where all sheet metal and wood parts are fabricated, is a building of fireproof construction and did not burn. Plant No. 3, which houses wood working machinery and lumber supplies, was also saved.

Temporary offices of the company have been established in the second floor of the old Opera House in Smyrna.

The fire, which broke out in the paint room and spread to the main offices located on the second floor of the brick, sheet metal, and frame building was discovered at 6:50 a.m. by a night watchman. It raged out of control for nearly three hours. Most of the company records were destroyed along with all stock parts in the second floor stock room.

Fire companies from several surrounding towns and an Army air base together with the local fire company and volunteers and company employees fought the blaze and assisted in salvaging as much of the equipment as possible including several completed freezers.

John E. Wilson, III, son of the president of the firm, narrowly escaped injury while attempting to salvage some records from the office.

Washer Industry Says Gains Continue, Parts Sales on the Rise

MACKINAC ISLAND, Mich.—Sales of household washing machine parts this year are expected to exceed last year by 20 to 25%, C. L. Atkinson, Jr., sales service manager of the Easy Washing Machine Corp., declared at the recent summer meeting of the American Washer & Ironer Manufacturers Association here.

Atkinson who is chairman of the parts service managers committee, noted that this increase will come on top of last year's 25% increase over 1946.

In addition, he asserted that several million dollars worth of "gyp parts" were sold last year. These parts, he said, are not built to manufacturer's standards and oftentimes lead to servicing that is expensive to the washer owner.

The association estimated that there were 21,987,000 household washers in use at the beginning of the year. Sales since the war were estimated at 8,000,000 units.

Sales of home laundering appliances this year are claimed to be the highest in history.

Roy W. Thompson, general traffic manager for the Maytag Co., declared that association members saved \$3,500,000 last year in freight rate adjustments obtained by the traffic committee.

I. N. Merritt, vice president and general manager, Conlon division, Conlon-Moore Corp., pointed out that ironers are now selling at 1 to 8 ratio with washers, the best in the industry.

(Concluded on Page 4, Column 4)

Credit Tightens For Dealer Who Seeks Financing

Banks, Some Financing Agencies Are Tending To Restrict Their Aid

DETROIT—Distributors and dealers in appliances and commercial refrigeration equipment are facing a "tighter" situation today in financing of inventories than at any time since the war—or in the years immediately preceding the war.

There are many contributing reasons for it—the pressure which the Federal agencies and banking groups are putting on to hold down inflationary tendencies, the higher "cost" of the money which lending agencies obtain, the higher reserve requirements for banks, more attractive markets for money elsewhere.

Dealers are not running into too much difficulty in finding someone to handle consumer paper, although some banks are pulling out of appliance financing, especially where the product may fall into the "off-brand" category.

But the "tightness" is becoming apparent in what the financial world calls "wholesale financing" and which the industry often calls "floor planning." In effect, it means any method by which a dealer finances an inventory.

One company which is active in the field on a national scale is said to be now following a policy of "entertaining new business, but not inviting it." All accounts are given careful scrutiny, and dealers for equipment that don't have a pretty well-established national reputation get an extra-careful looking over. Local reputation and financial standing are important.

The usual wholesale financing plan with a national finance company calls

(Concluded on Back Page, Column 2)

May Refrigerator Sales Off Slightly

NEW YORK CITY—Factory sales of household electric refrigerators continued their slight downward trend during May, figures reported to the National Electrical Manufacturers Association by 12 member companies has revealed.

The world sales total reported by these companies was 335,411 units, 4% below April. Sales in the U. S. numbered 317,763.

For the first five months of the year, world sales totaled 1,626,550, of which 1,540,293 were made within the United States, 772 in Canada, and 85,485 in other foreign countries.

Most popular boxes of the month were the 8-cu. ft. models. They accounted for about one third of all units sold. Units of 8, 6, and 4 or less cu. ft. capacity showed increases in sales, while refrigerators of 7 cu. ft. and from 9 to 12 cu. ft. showed declines.

In the five months totals and in foreign sales, the 7-cu. ft. box remains the leader.

ASRE December Meeting Goes to Washington, D. C.

NEW YORK CITY—The 44th annual meeting of The American Society of Refrigerating Engineers will be held Dec. 5-8 in Washington, D. C., it has been announced by C. F. Holske, president of the Society.

Headquarters for the meeting will be the Hotel Statler. The Baltimore-Washington Section of the Society will be host for the occasion.

Specialists
IN
AIR CONDITIONING
FOR SMALL BUSINESS
TYPHOON
SELF-CONTAINED UNITS

Sizes up to
7-Ton

Nationally
advertised to
your prospects

TYPHOON AIR CONDITIONING CO., INC.
Division of Ice Air Conditioning Co., Inc.
794 UNION STREET • BROOKLYN, N. Y.

Norge Announces Prices On Some New Products

DETROIT—Retail prices on the seven new Norge products introduced at the recent Home Furnishings Mart which was held in Chicago have been announced by the manufacturing officials.

They are: \$265 for the 8-cu. ft. refrigerator, \$199.95 for the standard electric range, \$299.95 for the deluxe electric range, \$499 for one beverage cooler and \$519 for the other, \$299.95 for one milk cooler and \$359.95 for two others.

Dealer In Name Change

HARTSVILLE, N. C.—Fox Hardware Co., Frigidaire dealer here, has recently changed its name to Carolina Hardware Co.

Brink Heads New Baker Office In California

SAN FRANCISCO—Baker Ice Machine Co., Inc., announces its expanded offices and location of its branch sales office at 445 Bryant St., San Francisco, under the direction of Laurence K. Brink, who for many years was connected with Baker's Los Angeles district office.

Larry Brink is well known throughout the Bay Area through his long association with the company. This office will handle and promote the company's air conditioning and refrigeration operations and the sale of its products.

For many years Baker has operated a district office and plant staffed with sales, engineering, service, and erection personnel in Los Angeles.

Remodeling To Expand Eastern Dealer's Display, Service Area

NORTH EAST, Pa.—The Hutchinson Electrical Store at 55 West Main St. is being remodeled and expanded and will be one of the finest appliance stores in this section of the state when completed. Lloyd Hutchinson is the proprietor.

An addition to the rear of the present store will be used for service and storage. A new display room is being erected in the front of the building plus new offices and storage space.

COLD SURGERY

Turning Out Units To Aid It
Hits Quite a Market

BUFFALO—The production of temperature-reducing hypothermy units for "cold surgery" has developed into quite a business for the Therm-O-Rite Products Co. here.

One of its biggest customers is the Veterans Administration which is currently on the books with a \$12,694 order for these human-refrigerating machines. Therm-O-Rite has already completed one order from the VA as well as five others from the U. S. Navy. Besides requests from several large hospitals throughout the country, the firm has shipped its product to Portugal, South America, and The Netherlands East Indies.

To keep up with this steady demand for hypothermy units, Therm-O-Rite recently took over 1,000 sq. ft. of floor space in the Jewett Refrigerator Co. plant here, according to Eugene L. Barnes, vice president of the former company and inventor of the machine.

Perfecold Will Handle G-E Commercial Line In Southern California

SAN FRANCISCO—Appointment of Perfecold, Inc. of Los Angeles as distributor of General Electric packaged commercial refrigeration equipment in southern California has been announced here by E. W. Howes, manager of the Pacific district of the G-E air conditioning department.

Perfecold will have sole distribution of G-E's 15, 23, and 31-case dry type beverage coolers; 16, 22 and 32-cu. ft. commercial reach-in refrigerators; 18 and 26-cu. ft. frozen food merchandisers; its type EMS milk coolers; and its 160 to 1,150-cu. ft. sectional walk-in refrigerators for both 0° and 38° F. temperatures, Howes said.

In addition, Perfecold will distribute water coolers, commercial refrigeration condensing and compressor units of 10-hp. capacity and below, and type EC commercial refrigeration air-cooling units to supplement existing distribution handled by the General Electric Supply Corp. and United Commercial Sales Co.

Informal Note

Package Conditioners Get Spotlight During Basement 'Parties'

ST. LOUIS—A quick way of accelerating the sale of package air conditioning units is by highlighting them at "appliance parties" which are held in the basement of Fred A. Schmidt Electrical Appliance Co., dealer at 6200 West Florissant Ave. here.

Fred Schmidt, head of the firm, is a "neighborhood" type of appliance dealer, and in addition to maintaining a large appliance repair shop, a parts inventory for the man who likes to tinker with his own appliance, and an electrical home needs department, he regularly stages "demonstration parties" in a basement showroom which he has furnished with 100 folding chairs.

On a raised stage at the end, model laundries, refrigerators, home freezers, ranges, and even small appliances are "put through their paces." Meanwhile, the audience participates in the show, enjoys free refreshments, cake and ice cream, etc., and an occasional television "telequizical" contest which includes prizes for attendance.

When Schmidt contracted for a franchise on the Mitchell M-10 ½-ton package air conditioning unit, he found the ideal means of calling attention to them by setting several in action in the basement showroom, to keep it at a cool, comfortable temperature, despite the presence of a large crowd during the hot summer months.

From four to six of these units, set up with a supply of fresh air, are located in the basement. During each type of appliance demonstration, Schmidt, who emcees all of the shows himself, "stops the music" points out the air conditioning units, and asks the prospect to note how cool and comfortable the room is kept.

"At least five or six times during each show, we manage to point out that the customer may have a bedroom equally cool and comfortable, merely by installing one of the sets," Schmidt explains.

One of the units is in action in each of five small stores which the Fred A. Schmidt company has opened during the past 15 years.

Styled
to SELL!



Smooth sales features mean cool sales profits

We invite you to take a long cool drink of Temprite profits! Other top dealers and distributors throughout the country now realize how easy it is to sell the smart Temprite drinking water coolers. Smooth sales features mean cool sales profits. Be a Temprite booster and boost your own dollar profits.

Just take a look at that sleek stainless-steel top design... that gleaming, streamlined bubbler! Cast your eyes on a cabinet you can sell easily for installation in any and all surroundings!

The 5 Temprite bottle and pressure-type models are styled to sell in a competitive

market at competitive prices. Every unit is backed by 20 years experience in the manufacture of water and beverage cooling equipment and the Temprite Company is committed to a program of consistent dealer and distributor cooperation... on every count. We are determined to protect your interests and to help you sell more water coolers.

We invite inquiries from distributors and dealers throughout the country. Write or wire now!

TEMPRITE PRODUCTS CORP.

43 PIQUETTE AVE. • DETROIT 2, MICH. U.S.A.

OTHER PRODUCTS MADE BY TEMPRITE

Carbonators and Cooler Carbonators • Commercial water coolers • Soda fountain coolers • Temperature control valves • Draught beer coolers • Oil separators • Accumulator heat exchangers • Industrial water coolers • Equalizer tanks

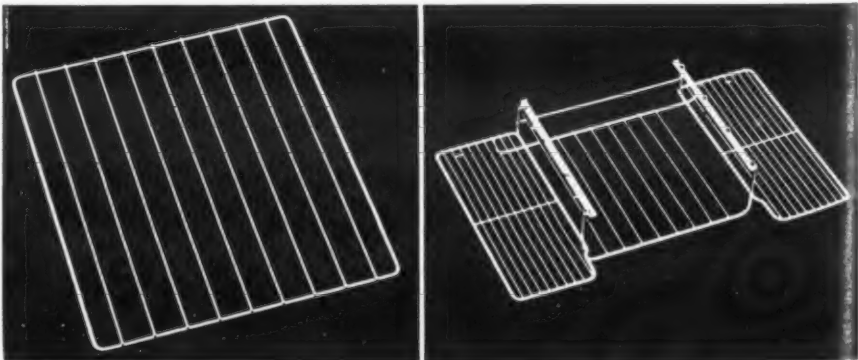
Originators of Instantaneous 80°-40° Liquid Cooling Devices.

TEMPRITE
DRINKING WATER COOLERS

Plain or Fancy Your best source for Refrigerator Shelves is *United!*

You see below a sample from the hundreds of designs of racks, broilers, grills, shelving, and baskets, now under production for over 60 major appliance manufacturers here at United. No two are alike, each is manufactured to separate specifications.

The transition from drawing board idea to practical production item was accomplished to a large degree by United's own engineering department. This service, rendered without extra cost to manufacturers, has saved them thousands of dollars in production costs. That's why our own customers tell us, that for welded wire or wire and steel, it pays to check with United first!



UNITED STEEL AND WIRE CO.
150 FONDA ST., BATTLE CREEK, MICH.

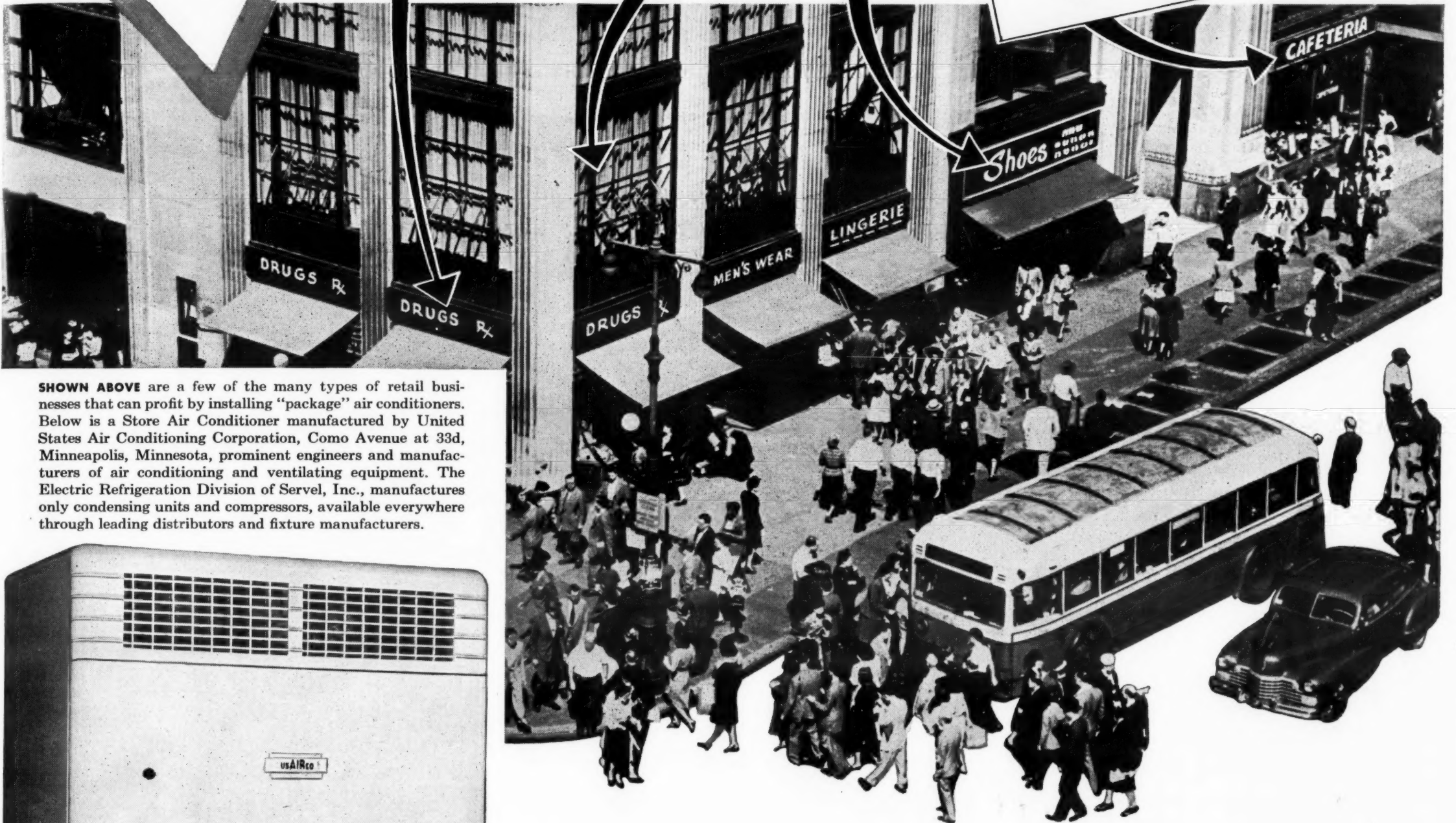
Here's your market

DRUG STORES

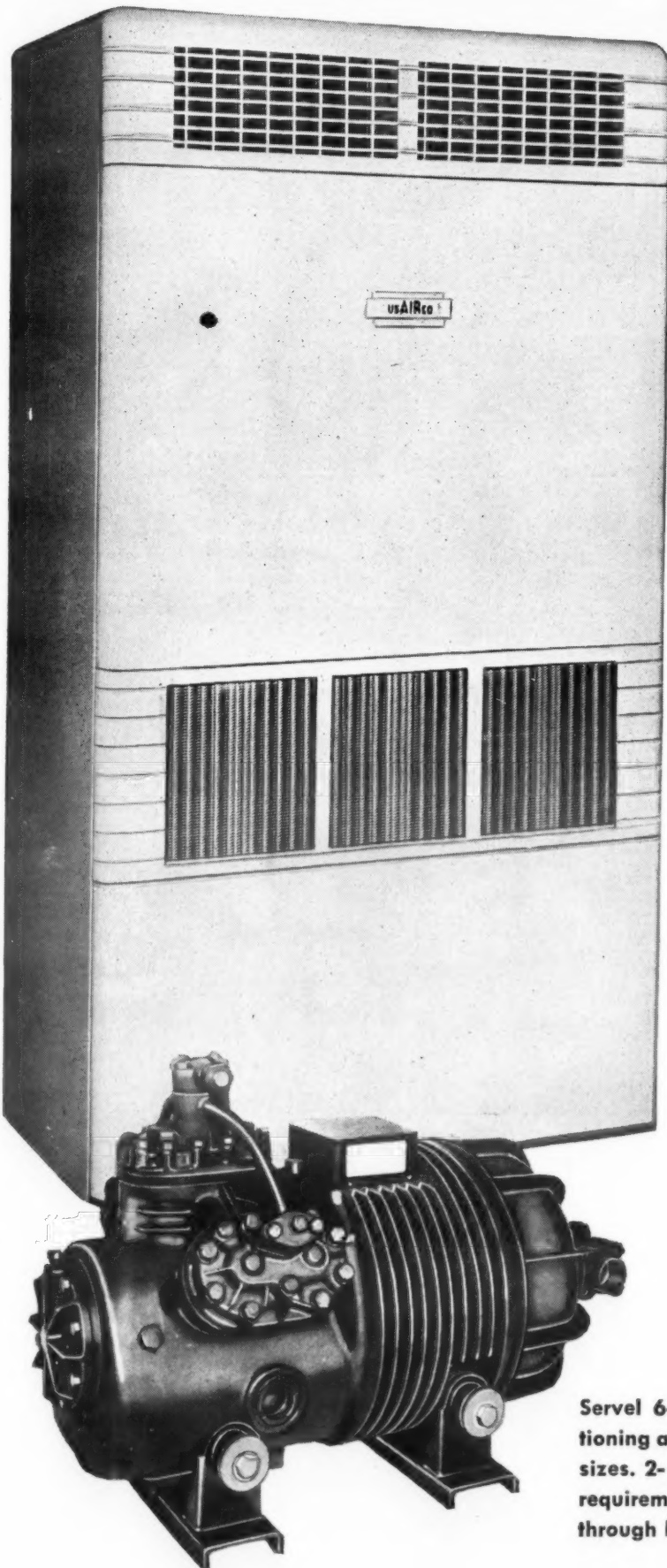
OFFICES

SHOPS

RESTAURANTS



SHOWN ABOVE are a few of the many types of retail businesses that can profit by installing "package" air conditioners. Below is a Store Air Conditioner manufactured by United States Air Conditioning Corporation, Como Avenue at 33d, Minneapolis, Minnesota, prominent engineers and manufacturers of air conditioning and ventilating equipment. The Electric Refrigeration Division of Servel, Inc., manufactures only condensing units and compressors, available everywhere through leading distributors and fixture manufacturers.



Servel 6-cylinder Supermetic units for air conditioning applications are available in 2, 3, and 5 HP sizes. 2- and 4-cylinder units for high temperature requirements also are available in sizes from 1/2 through 1 1/2 HP.

Plenty of Hot Prospects for Store Air Conditioners

RIGHT NOW is the best time to sell "package" air conditioners to drug stores, restaurants, retail shops, doctors and dentists, commercial offices and many other businesses. For these easily installed units bring relief from sweltering summer heat. They provide refreshing coolness that boosts low seasonal sales.

Thousands of business men have already found that air conditioning attracts more customers, keeps them in the store longer. They agree that friends made in the hot summer months often become steady customers the rest of the year. Users know, too, that air conditioning improves the efficiency of their staff, protects merchandise, lowers cleaning bills.

This enthusiasm for "package" air conditioning is your strongest selling point. Testimonials of satisfied users in your community will convince prospects that air conditioning is a profitable investment—one that quickly pays off its original cost. Testimonials also help sell the efficiency of "package" coolers, their

simplicity of operation and ease of installation.

But remember, it's particularly important to recommend a cooler with a dependable refrigeration unit. Servel Supermetics have wide consumer acceptance. They provide high capacity in a minimum of space, coupled with economical, trouble-free operation. Supermetics with capacities through five tons are available in a single unit, while multiples of two or more power units permit flexibility of control in the larger capacities.

Servel's companion line of belt-driven compressors offers the same high quality for odd-frequency and DC applications impractical with Supermetic.

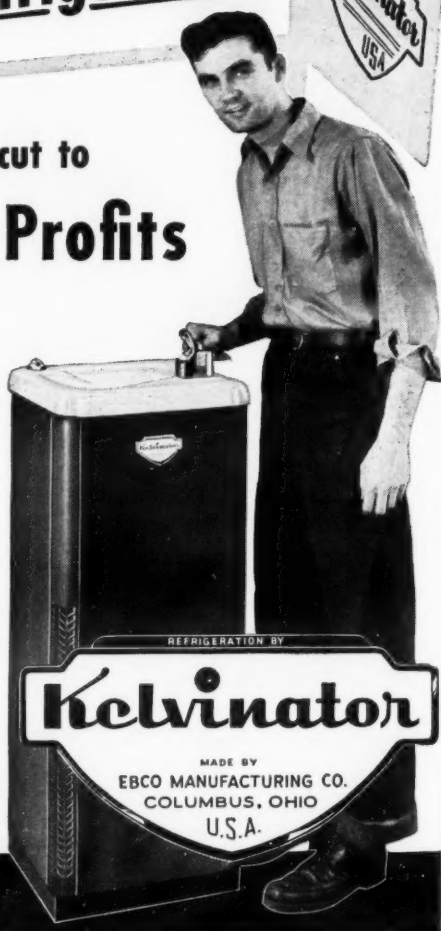
For the finest in condensing units, recommend Servel Supermetic. It's standard equipment with many leading manufacturers of air conditioners and commercial refrigeration fixtures. Write today for a free booklet, "Servel Supermetics," to Servel, Inc., 2807 Kentucky Ave., Evansville 20, Indiana.

Servel Inc.
ELECTRIC REFRIGERATION DIVISION, EVANSVILLE 20, INDIANA

Properly cooled water-Kelvinator-refrigerated

—that's your short cut to Water Cooler Profits

Are you on the inside track to today's fastest-growing market? Even the smallest stores, offices and plants are now realizing the importance of electric water cooler service. Match this business-wide acceptance of the need for properly cooled drinking water with the ready-made acceptance of the name Kelvinator for top value in refrigeration! Kelvinator-refrigerated Electric Water Coolers offer models and sizes for every need—bottle or pressure types, with bubblers or glass fillers (or both), for AC or DC operation. Write for full details today!



THE EBCO MANUFACTURING CO.
Town and Lucas St., Columbus 8, Ohio

Dealers Warned Not To Pay Shipping Charges

NEW YORK CITY—Don't pay shipping charges on merchandise that was not previously sold f.o.b., the National Retail Dry Goods Association warns retailers.

The group, headed by Lew Hahn, issued a special bulletin indicating the danger of accepting altered conditions of sale merely because the steel and cement industries have abandoned the basing point system of pricing. Until the cement case decision is fully clarified, he affirmed, action in other fields is premature.

According to the NRDGA's general counsel the decision by the Supreme Court in the cement case does not necessarily "place an embargo" on any system of "delivered prices," despite the interpretation already given it by some manufacturers.

Freezer Set Near Contest Box Gets Attention

NIAGARA FALLS, N. Y.—Harry Pugrant, Inc., appliance and furniture store here, successfully promoted the sale of home freezers by offering frozen foods free to winners of an early summer contest.

Winners received a large assortment of frozen foods, including a 5-lb. dressed chicken.

The promotion pulled traffic to the store and a display of home freezers was strategically located near the contest box so that participants automatically saw the appliance when they deposited their entries.

335,411 NEMA Household Sales In May

Complete Refrigerators Only
(Lacquer and Porcelain Exterior Cabinets) (Advertised Sizes)
MAY (12 Companies)

Sizes	Domestic (48 States and D. C.)	Canadian	Other Foreign	Total
1. Less than 4 cu. ft....	554	....	....	554
2. 4 cu. ft.	1,241	....	....	1,241
3. 5 cu. ft. ....	....	....	....	....
4. 6 cu. ft.	36,925	....	4,049	40,974
5. 7 cu. ft.	83,800	....	6,714	90,514
6. 8 cu. ft.	104,102	....	4,660	108,762
7. 9 and 10 cu. ft....	83,686	....	2,224	85,910
8. 11 and 12 cu. ft....	7,454	1	....	7,455
9. 13 cu. ft. and up....	1	....	....	1
10. Total	317,763	1	17,647	335,411

FIRST FIVE MONTHS (11 and 12 companies reporting)

Sizes	Domestic (48 States and D. C.)	Canadian	Other Foreign	Total
1. Less than 4 cu. ft....	1,541	....	....	1,541
2. 4 cu. ft.	5,071	....	124	5,195
3. 5 cu. ft. ....	....	....	....	....
4. 6 cu. ft.	161,377	....	20,955	182,332
5. 7 cu. ft.	508,986	703	36,689	546,378
6. 8 cu. ft.	468,037	66	18,396	486,499
7. 9 and 10 cu. ft....	357,969	2	9,135	367,106
8. 11 and 12 cu. ft....	37,310	1	186	37,497
9. 13 cu. ft. and up....	2	....	....	2
10. Total	1,540,293	772	85,485	1,626,550

Participating companies: Admiral Corp.; Crosley Div., AVCO Mfg. Corp.; The Coolerator Co.; Frigidaire Div., General Motors Corp.; General Electric Co.; Gibson Refrigerator Co.; Hotpoint, Inc.; International Harvester Co. (In 4-1-48); Nash-Kelvinator Corp.; Norge Div., Borg-Warner Corp.; Seeger Refrigerator Co.; and Westinghouse Electric Corp.

Washer Industry--

(Concluded from Page 1, Column 4) try's history. However, he urged formulation of a cross country series of distributor-dealer clinics to lay plans for redoubled promotion of ironers.

Roy Bradt, association president and vice president of Maytag Co., told the manufacturers that the industry has invested \$10,000,000 in new plants and additions to old ones with some of the largest yet to be completed. He said that the industry's production capacity is now "three to four times that of pre-war days."

Bradt also asserted that shortages of parts, raw materials, and labor were still continuing. He gave these illustrations:

"One manufacturer recently could not turn out any washers for a month because of his inability to obtain tubs. Not long before, another member received a shipment of 2,000 wringers without drainboards and therefore useless to him."

NIAGARA
"NO-FROST" METHOD
WITH SPRAY COOLERS
... gives always full capacity because there is no interruption for defrosting at sub-zero temperatures; protects quality in foods.
NIAGARA BLOWER COMPANY
30 Years of Service in Air Engineering
405 Lexington Ave., New York 17, N. Y.

insist on
genuine
Marlo
products
MARLO-HEAT TRANSFER
Since 1925

For the Big

Buy **Kelvinator**

**TROUBLE-FREE
PERFORMANCE
USER ACCEPTANCE
COMPETITIVE PRICE**



Yes, all three of these basic sales advantages are yours when you buy Kelvinator condensing units. For they're priced competitively... they perform dependably... and they bear a name that customers know means quality!

Throughout their production, Kelvinator condensing units are precision-tested to insure top-notch performance under all conditions. Their complete dependability is known by refrigeration men everywhere, just as the name Kelvinator itself means the most advanced design and quality manufacture.

Just drop in at one of Kelvinator's 50 convenient supply depots. Each carries a complete stock of refrigeration parts and supplies, competitively priced. You'll always find fast, friendly service at Kelvinator... Kelvinator Division, Nash-Kelvinator Corporation, Detroit, Michigan.

GET YOUR COPY!

Here's a new catalog for the quick, easy way to buy refrigeration parts and supplies. All information and prices are grouped for easy reference. Ask for it at your local Kelvinator Distributor's or Zone Office.

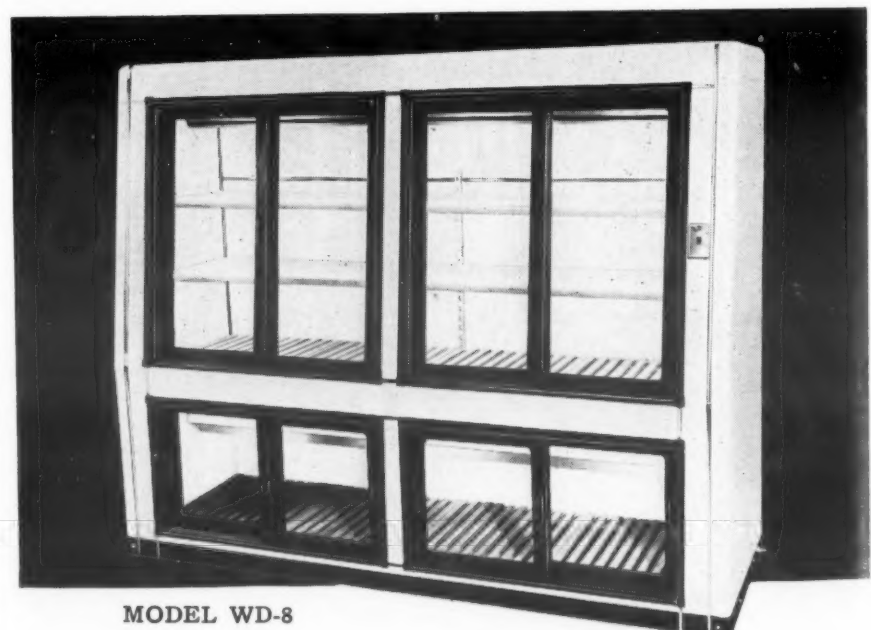


Kelvinator

CONDENSING UNITS
REFRIGERATION PARTS AND
SUPPLIES

BUY KELVINATOR FOR ALL YOUR REFRIGERATION REQUIREMENTS

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MODEL WD-8

with "COLD-IN" DAIRY WALL CASE
VITREOUS PORCELAIN INTERIOR AND EXTERIOR

• Adjustable shelves • Warp-proof hard rubber doors and jambs • Available with hinge doors on bottom • Fluorescent lighting throughout.



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COLDIN CABINET CO., Inc.
2800 Webster Avenue, Bronx 58, N. Y. Tel. SEdwick 3-5833

Neb. Drugstores Prove Good Prospects Now For Refrigeration and Air Conditioning

OMAHA, Neb.—Drugstore proprietors are good prospects for air conditioning and many varieties of commercial refrigeration equipment for many reasons, local distributors have noted after chalking up one of their busiest seasons of selling to that type merchant this spring.

To illustrate, they cited several of the more prominent installations:

In Lincoln, the Self-Service Drug Co., located at 1211 "O" St. put in an air conditioned three-shelf, self-serve cigar case to keep cigars at a fixed temperature and relative humidity and a refrigerated cabinet for biologicals.

The Ruppert Pharmacy, 13th and "N" Sts., Lincoln, operated by E. J. Ruppert installed a new reach-in refrigerated display case for packaged ice cream. This drugstore has year-round air conditioning.

The Randolph Drug Co., in Lincoln, headed by Felix L. and Leonard G. Schmitz of Lincoln, and Catharine Schmitz of Omaha, is remodeling the old Harry Shutt Pharmacy at 27th and Randolph into an ultra-modern establishment to be known as "The drugstore of tomorrow."

New equipment includes a central air conditioning system, new fountain-grill, full-vision mirror front, and entire new layout of fixtures and stocks. The owners also plan to build a similar air conditioned ultra-modern pharmacy in the exclusive Piedmont residential section of Lincoln.

Green's Rexall Pharmacy, 40th and Farnam Sts., Omaha, put in a new 40-ft. fountain and two 2½-ton unit-packaged York air conditioning units. One unit has been placed in the rear near the semi-open prescription department, and the other at the end of the fountain nearest the front of the store, which measures 50 by 150 ft.

New-style, reach-in refrigerated ice cream cases have been installed at the Daniel-Morris Drugstore in Fremont, Cheaper Drug Co. in Lincoln, and Drug Mart in Lincoln.

A new drugstore erected at Alliance by E. L. Thompson of Chadron has one side devoted to self-service. Equipment includes a reach-in refrigerated candy case.

Milton Grosshans opened a self-service drugstore in Alliance, with such new equipment as a self-dispensing bottled drink machine and a refrigerated Globelin self-serve candy case.

Louis J. Stewart, whose pharmacy at Lexington was destroyed by fire last August, erected a three-story building which was opened for business last spring. Year-round air conditioning and two new soda fountains are features of the new structure which has 6,000 sq. ft. of selling space and 3,000 sq. ft. of storage.

The Westside Pharmacy owned by Harold Gauer in Omaha purchased air conditioning equipment and a soda fountain. The Beaton Drug Co. is opening a new drugstore at 40th

and Farnam Sts. in Omaha, which will be air conditioned.

Robert Van Norman has installed a new commercial-type refrigerator with glass doors for storage and display of biologicals in his pharmacy at Bassett, while Arnold Mason of Fremont and Bernard Wilson of Atkinson are installing new refrigeration equipment in their pharmacies.

A new soda fountain and coke dispenser have been added at the Townsend Drugstore in Ponca.

Phil Wolber installed a new Curtis air conditioning system in his pharmacy at Bellevue.

New Sunroc Model Solves Aruba's Water Cooler Dilemma With Static Condenser

GLEN RIDDLE, Pa.—The hot, dry, oil rich island of Aruba off the coast of Venezuela recently played a leading role in the development of a new type of drinking water cooler.

Aruba tossed some problems into the laps of engineers at the Sunroc Refrigeration Co. here that couldn't be answered by the usual drinking water cooler with air or water-cooled condensers.

For one thing, except for a limited supply of brackish well water, the only water that reaches Aruba falls on it in the form of rain. Or it is shipped in by oil tanker from the United States. That makes the avail-

able water too valuable for use in cooling condensers.

For another, 8,000 employees of the Lago Oil & Transport Co. a Standard Oil of New Jersey subsidiary, are busy extracting and refining its oil resources. Static electricity, such as would be generated by a motor driven fan, provides a constant source of danger from explosion to both life and property. That ruled out the conventional air-cooled condenser.

Sunroc engineers came up with what they believe to be the answer—a cooler equipped with a static condenser, called model SAFE.

The static condenser, they explained, eliminates all hazards because there are no moving parts. Cooling of the refrigerant is accomplished as the gas travels through lengths of coil that are exposed to the natural movement of air.

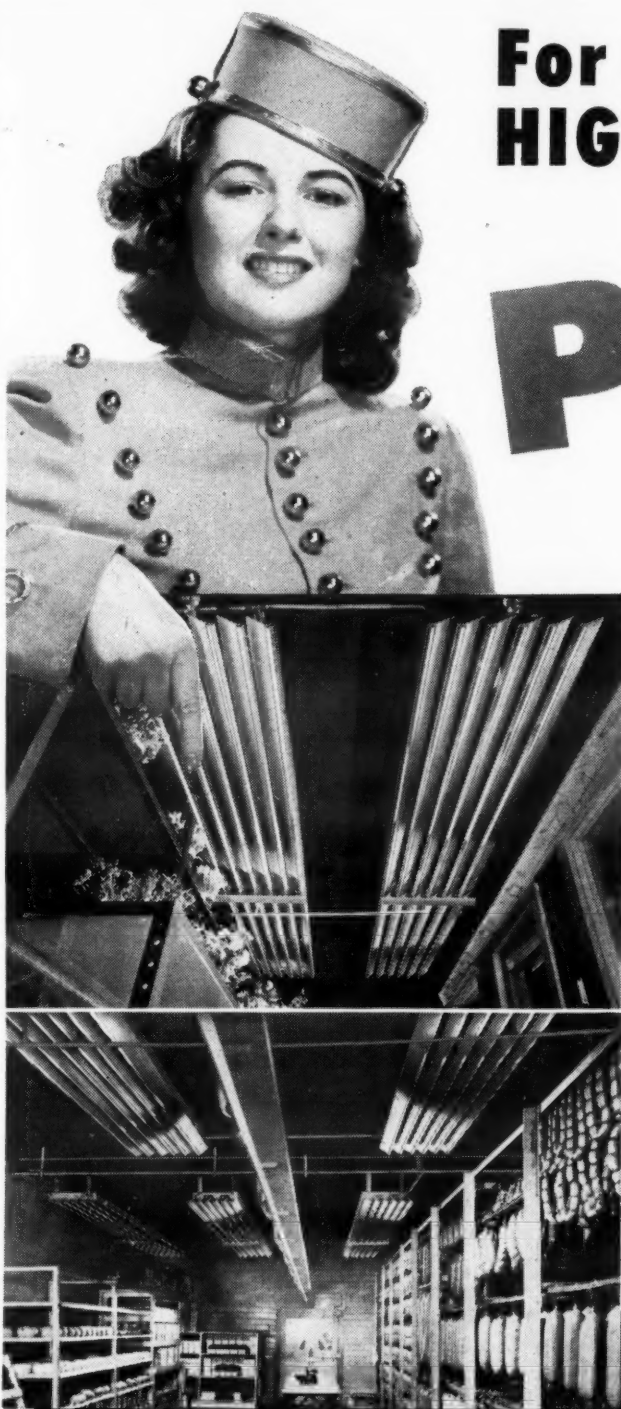
Free Booklet Tells Water Cooler Story

PITTSBURGH—A free copy of a 24-page booklet showing the need for properly cooled, good, pure drinking water is now available to all interested persons in the industry.

This booklet, entitled, "The Water Cooler Story," has been recently published by the Drinking Water Cooler Association. It is not a sales booklet and deals only with the need for and value of pure drinking water as an aid to health, vitality, efficiency, morale, and goodwill.

It points out the value of water coolers and the various types.

Copies may be secured from Refrigeration Equipment Manufacturers Association, 1107 Clark building here.



For Positive Maintenance of HIGH HUMIDITY... PEERLESS FLASH COOLERS!

● Where coolness without dehydration is essential, PEERLESS Flash Coolers give the desired performance. These are the original Flash Coolers, introduced 15 years ago by PEERLESS, and improved to their present high-efficiency in the refrigerating of cut meats, flowers, and all products where high humidity must be maintained. Wide, shallow coils spread under ceilings enable these units to deliver large volumes of cooled air with high relative humidity. Install them in cold storage boxes, walk-in and reach-in refrigerators, for retailers, wholesale houses, packing houses. Better preservation of products by PEERLESS Flash Coolers brings customer satisfaction.

For superior performance specify all these PEERLESS products: Flash Plates, Flash Coolers, Unit Coolers, Ice Cube Makers, Fin Coils, Off Center Coils, Expansion Valves and Capacity Boosters. Write for Details.



● Higher operating back pressure with low flat coils provides higher compressor capacity, a more efficient installation with reduced operating cost.

● Open-louvered drip pan permits free circulation of air through coil surface which produces large volumes of cool tempered air flowing downward by gravity over stored products.

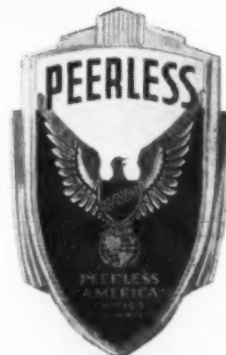
● Refrigerant circuit is continuous copper tube with aluminum fins—non-soldered return bends. No Joints!—No Leaks!

● The famous Peerless Internal Rifling swirls refrigerant over entire interior surface of tubing, insuring a 100% internal wetted surface and in turn 100% coil efficiency.

● A Flash Cooler occupies a space not to exceed 16" from ceiling. A complete unit, it is quickly, easily installed by bolting the convenient hangers to ceiling.

SOLD THROUGH LEADING
REFRIGERATION SUPPLY WHOLESALERS

PEERLESS of AMERICA, Inc.



General Sales Offices 2901 Lawrence Ave., Chicago 25, Illinois, U. S. A.

IN AIR CONDITIONERS

**Ameri-therm
LEADS IN VALUE**

**THINK TWICE . . .
ABOUT PRICE!**

In packaged air conditioners, price is only half the story; value is what counts! Actual comparison by independent researchers proves that only AMERI-THERM has all the "PLUS" features that mean greater value to your customers . . . and greater net profits to you!

• Send for our free Comparison Chart!

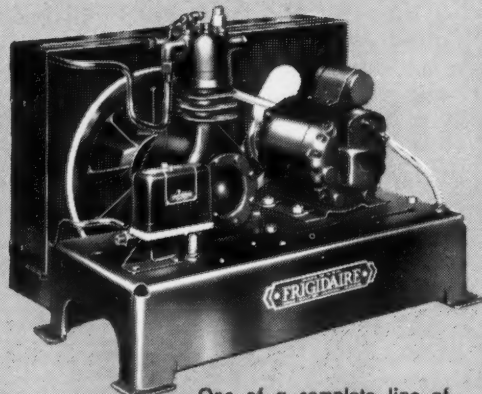
Exclusive dealer-ships still available.

AMERICAN THERMAL INDUSTRIES, INC.
442 ILLINOIS • DETROIT 1, MICH.

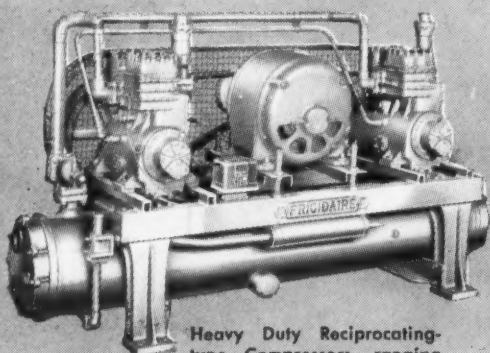
NOW...OVER 400



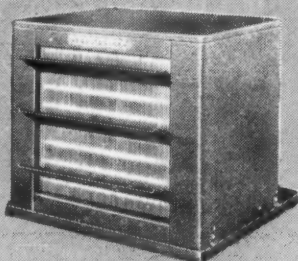
Meter-Miser Sealed, Rotary-type Compressors for remote installations. Sealed in steel—oiled for life.



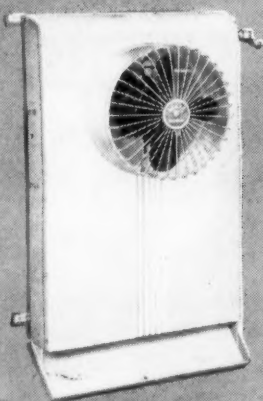
One of a complete line of Reciprocating-type Compressors, ranging upward from 1/5 H.P.



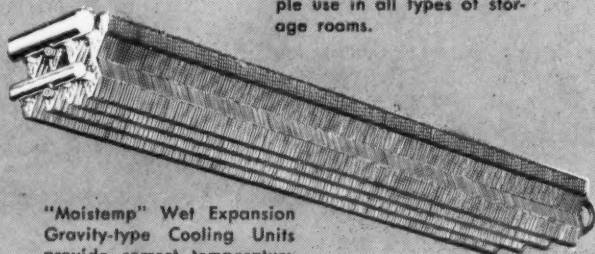
Heavy Duty Reciprocating-type Compressors, ranging up to 25 H.P., for large commercial and air conditioning installations.



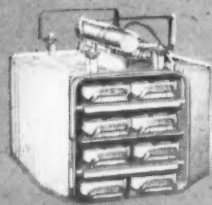
Ceiling-type Forced Air Cooling Units for single or multiple use in all types of storage rooms.



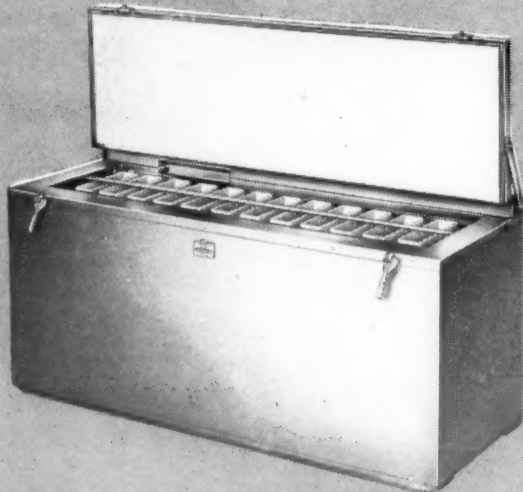
Wall-type Forced Air Cooling Units are ideal for refrigerators, back-bars, and small walk-in coolers.



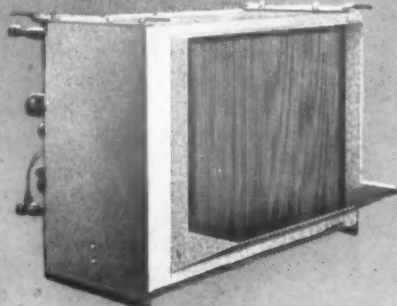
"Moistemp" Wet Expansion Gravity-type Cooling Units provide correct temperature and moisture conditions in a wide range of sizes and capacities.



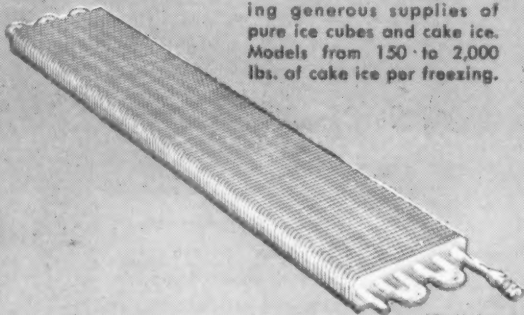
Ice Making Cooling Units provide proper refrigeration as well as a constant supply of ice cubes.



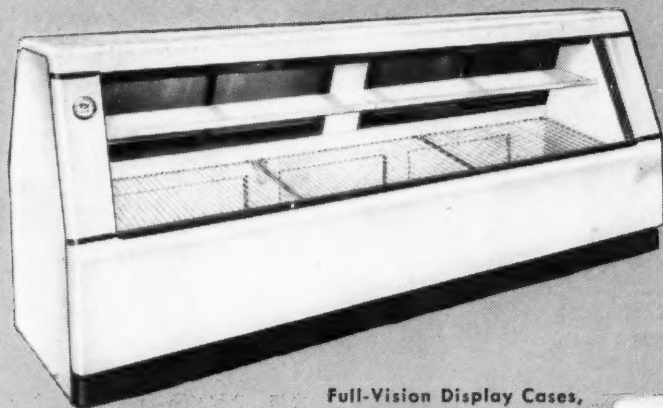
Bulk Ice Makers for producing generous supplies of pure ice cubes and cake ice. Models from 150 to 2,000 lbs. of cake ice per freezing.



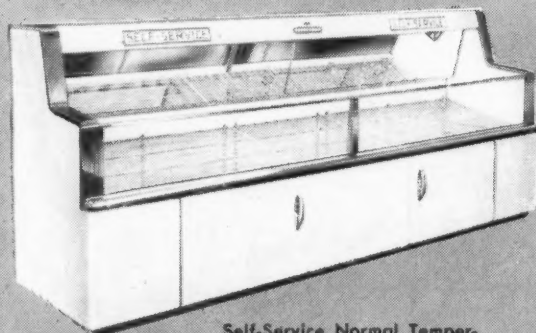
Evaporative Condensers are used with Evaporative-type Compressors to reduce water consumption.



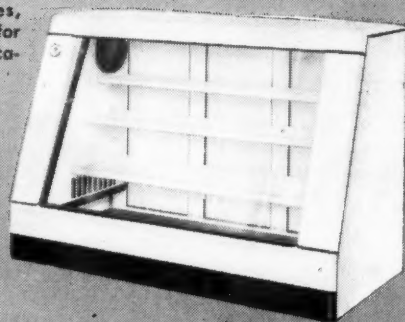
Dry Expansion Gravity-type Cooling Units—one of a large number of models assuring full cooling capacity and economical operation.



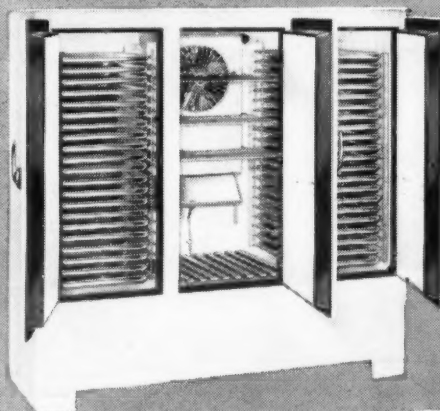
Double Duty Display Cases with refrigerated display and storage section. Self-contained models also available featuring refrigerated top display only.



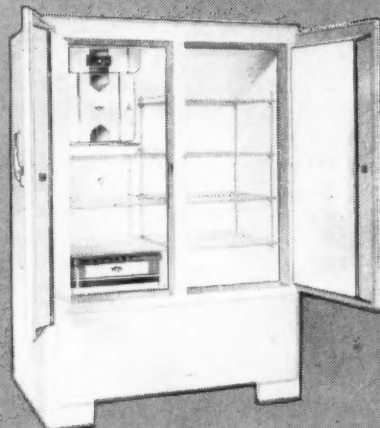
Full-Vision Display Cases, with forced air cooling, for featuring dairy and delicatessen products.



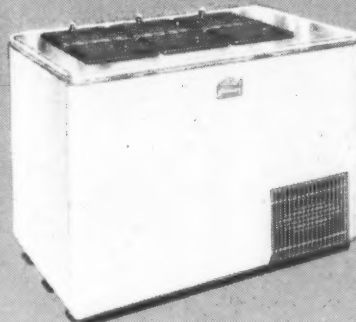
Self-Service Normal Temperature Display Cases for meats, vegetables, and dairy products.



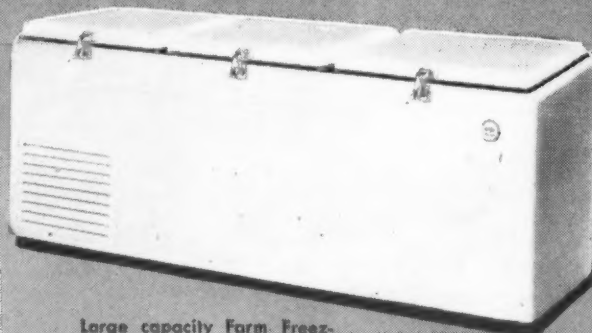
Bakery Refrigerators for the safe, scientific storage of prepared dough and preservation of ingredients.



Self-contained Reach-In Refrigerators range up to 60 cu. ft. capacity. Available with forced air or ice making cooling units.



Complete line of Ice Cream Cabinets, ranging from 10 to 60 gallon storage capacity. Available in single or double row, self-contained or remote models.



Large capacity Farm Freezers for freezing and storing meats, vegetables, and fruits.



Low Temperature, Self-Serve Display Cases for dependable storage and profitable merchandising of frozen foods and ice cream. Removable, easy-glide tops.

What Frigidaire Product Leadership means to Frigidaire Commercial Dealers

Frigidaire Commercial Dealers have a major sales advantage—they can sell in every important market and sell the right equipment for the right job. That's because the Frigidaire line consists of over 400 commercial refrigeration and air conditioning products, the most complete line under one trademark. This helps get customers into the profitable habit of coming to Frigidaire Commercial Dealers first.

Frigidaire Commercial Dealers sell perfectly matched

equipment—the most important single advantage it's possible to offer a customer. Compressor, cooling unit and controls work together as a balanced unit, delivering maximum efficiency at minimum cost.

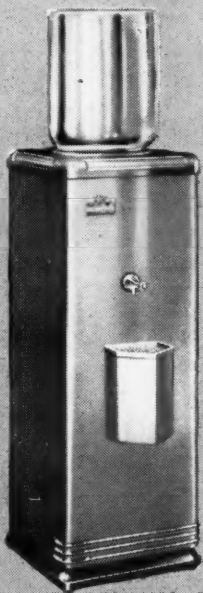
For these reasons, Frigidaire Commercial Dealers can sell a larger volume, show larger profit figures. And this is just one of many ways in which Frigidaire leadership is helping Frigidaire Commercial Dealers build better business.

PRODUCTS

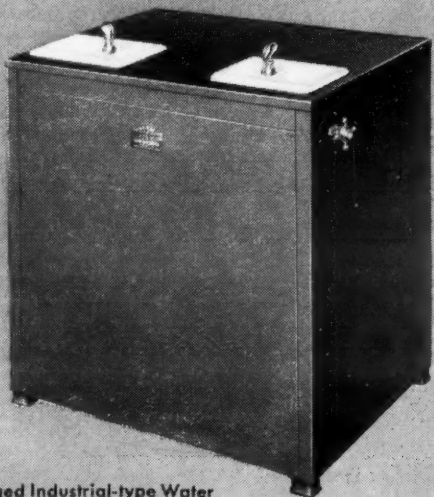
Frigidaire offers the
most complete line of Commercial
Refrigeration and Air Conditioning
in the industry



Pressure-type Water Coolers, of various capacities, for use in restaurants, stores, offices, and similar businesses.



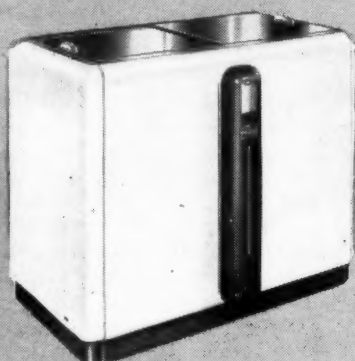
Bottle-type Water Coolers for quick installation and easy portability.



Rugged Industrial-type Water Coolers of high capacities for heavy duty service.



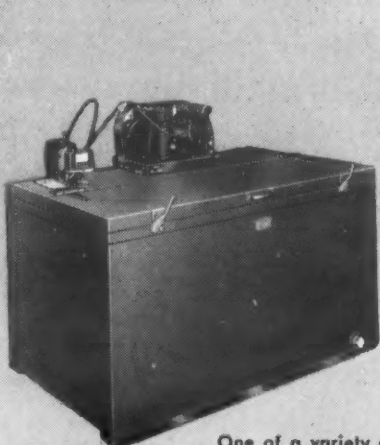
Tank-type Water Cooler models cool up to 50 gallons per hour. Space-saving installation.



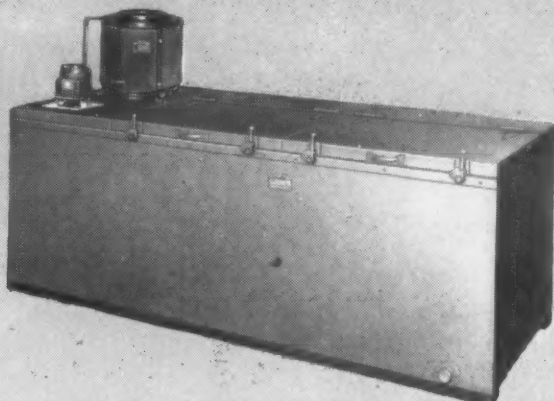
Wet Storage Beverage Coolers for cooling carbonated and malt beverages, fruit juices, and milk drinks.



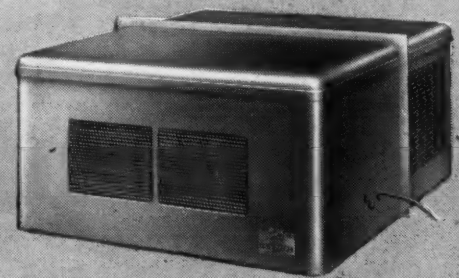
Dry Storage Beverage Coolers in self-contained and remote-type models. Convenient, sanitary service.



One of a variety of Drop-In type Milk Coolers. Fast cooling, economical operation, and dependable temperatures at all times.

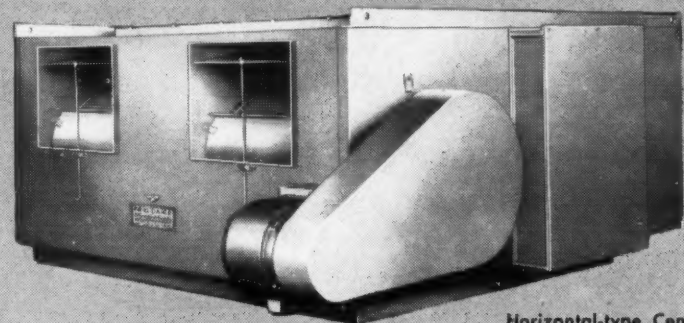


Coil-and-Rack type Milk Coolers in a variety of sizes. Sturdily built, economical, reliable.

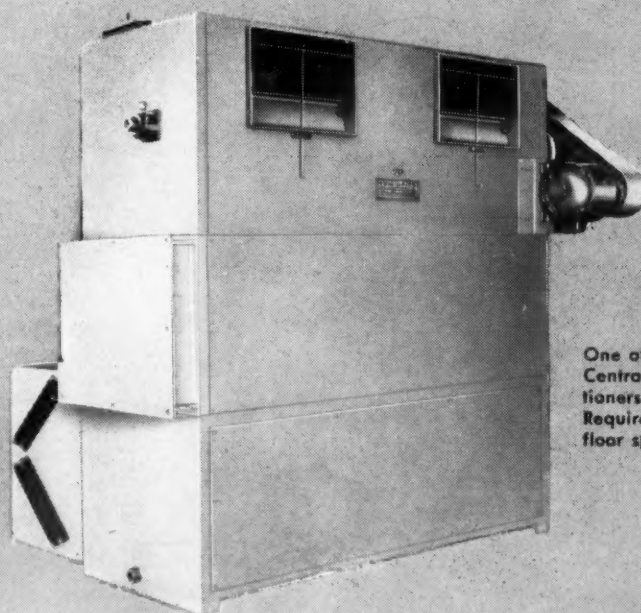


Room Air Conditioners for window installations. Compact, quiet, self-contained. Floor-type models available for remote installations.

One of the self-contained Store Air Conditioners for single or multiple installation in stores, restaurants, and factories. Easy to install—portable, 3 and 5 ton sizes.

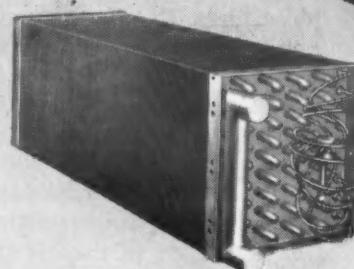


Horizontal-type Central System Air Conditioners are for overhead or below-floor installation where space is at a premium. Other sizes available up to 9000 cu. ft. of conditioned air per minute.



One of the Vertical types of Central System Air Conditioners for floor installation. Requires minimum amount of floor space.

Suspended-type Air Conditioners using either Freon or chilled water as cooling medium. Heating coil may be added to provide warm, filtered air in winter months.



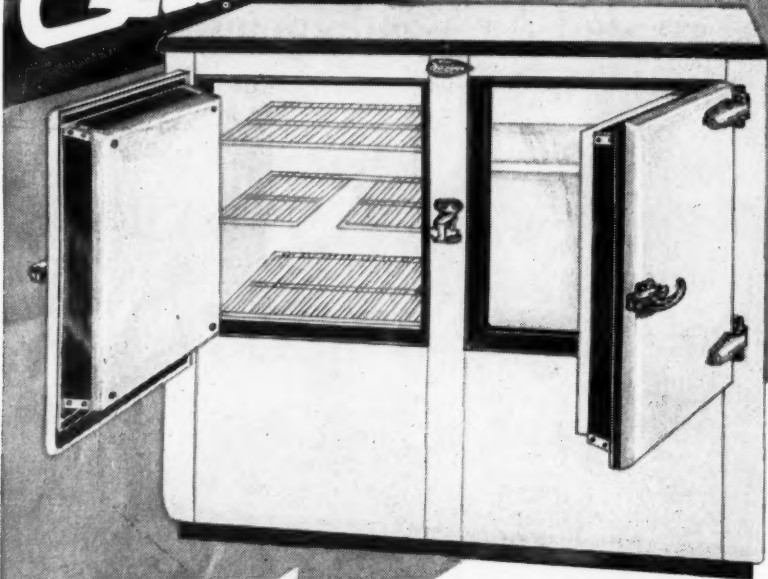
Multipath Cooling Units for Freon, water, or steam are available in a wide variety of sizes for use with Central System Air Conditioners.

You're twice as sure with two great names

FRIGIDAIRE made only by
GENERAL MOTORS



Sanitary Quickfreez



TRIZONE

For Every Food Keeping Need

4.5 cu. ft. of normal refrigerator operating at 40° Ave. with 6.25 cu. ft. of zero frozen storage for 250-300 lbs. of meat. 48 1/2" W x 28" D x 40 3/4" H. No. C-1148

\$399.50

SANITARY REFRIGERATOR CO.
FOND DU LAC, WISCONSIN
Manufacturers of
Quality Refrigerators for Over 40 Years
QUICKFREEZ Farm Locker Plants Since 1939

Westinghouse Releases Higher Prices on 25 Water Heater Models

MANSFIELD, Ohio—In line with higher schedules for other appliances, the Westinghouse Appliance Division has released a list of adjusted prices on its water heaters.

Following is a complete list of water heaters affected, showing both old and new levels:

WATER HEATERS

	Old Price	New Price
4810-LG1	\$ 85.95	\$ 94.95
4830-LG1	111.95	119.95
4830-SG2	122.95	128.95
4840-SG1	125.95	132.95
4840-SG2	132.95	139.95
4852-SG1	140.95	142.95
4852-SG2	147.95	149.95
4866-SG1	159.95	165.95
4866-SG2	166.95	172.95
4880-SG1	179.95	187.95
4880-SG2	186.95	194.95
4830-DG1	125.95	134.95
4830-DG2	132.95	141.95
4840-DG1	135.95	145.95
4840-DG2	142.95	152.95
4852-DG1	150.95	155.95
4852-DG2	157.95	162.95
4866-DG1	169.95	178.95
4866-DG2	176.95	185.95
4880-DG1	189.95	200.95
4880-DG2	196.95	207.95
4830-TG1	124.95	127.95
4830-TG2	131.95	134.95
4840-TG1	139.95	142.95
4840-TG2	146.95	149.95

(Details of price increases on other Westinghouse appliances were published in the NEWS of July 12.)

Painting Makes 'em Look Like New



Customer Pays Dealer 'Service Charge' To Have Him Overhaul, Market Trade-In

RENO, Nev.—A novel system for handling trade-in refrigerators, which has a lot of advantages, has been developed by Joe Moore and Milo Tally, partners in the Moore-Tally, Inc., dealership here.

The partners, both of whom have been associated with major appliance distributors for many years, set up the retail Moore-Tally, Inc., at the turn of the year when Savier's, large appliance distributing organization in Reno, elected to give up its retail department. Geared up to do a volume of half a million dollars per year, the Moore-Tally concern has a staff of 22 service mechanics, and although located in a town of only 30,000 people, expects to draw business from the entire northern Nevada area, plus a large part of northern California.

Trade-ins have been a problem from the outset, according to Moore. While the average customer in the Nevada area is well-off from a financial standpoint, all expect a fair exchange for their old refrigerators, and therefore, numerous trade-ins have been involved.

To handle them, the store has set up a 60 x 50-ft. major appliance overhauling shop on the ground-floor level of the store, and constructed a paint-spray booth, which is a model of operating efficiency. Measuring 10 x 8 ft., it is enclosed entirely in walls of surplus aircraft aluminum, lighted with six glass-globe-covered incandescent lights, and equipped with a 7,500 c.f.m. exhaust fan, which draws air into the room only through a series of baffled glass-wool filters.

To one side is ample space to serve as a showroom for used appliances which have been completely rebuilt and refinished.

Unlike most major appliance dealerships, Moore-Tally has shied strictly away from the usual practice of giving the customer an allowance for a trade-in box in order "to keep the profit clean on the new refrigerator." Instead, Moore-Tally offers to sell the refrigerator on a consignment basis for the customer, completely overhauling it, and applying a service charge which is equivalent to the

amount of profit the store could expect to make from buying and reselling the box on its own.

The entire secret of this plan, according to Moore, is turnover. Under the tenets by which the consignment agreement is entered into the store will try to get the customer's price over a two-month period—after the expiration of which the customer must either accept whatever the store can sell it for, or "come and get it."

To date, no refrigerator has remained on the floor long enough for the owner to have to pick it up, according to Moore. The reason is an excellent reputation for maximum efficiency and value in Moore-Tally "rebuilt." With a large crew of expert refrigeration mechanics, every box is torn down, all parts thoroughly examined, magnetically and visually, and anything which needs repair is replaced. The cabinet is given complete new hardware, and put through the paint-spray booth, for sanding, buffing down, and smoothly applied coats of enamel.

"Our idea is that every trade-in refrigerator should be as nearly new as possible when it leaves us," Moore said, "which the paint shop makes possible."

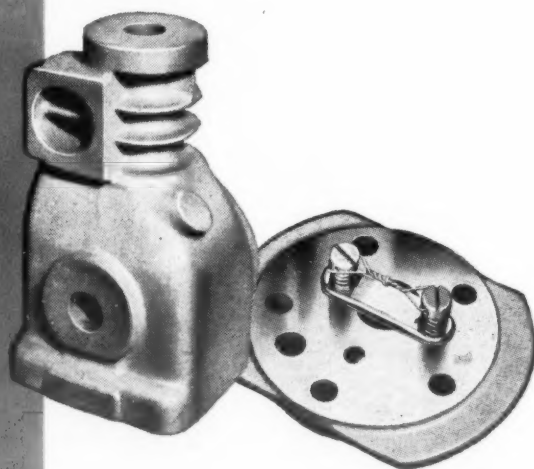
This system has kept trade-in refrigerators moving swiftly through the process and out, according to the partners.

5-Month Washer Sales Reflect 30% Increase

CHICAGO—A 30% rise in the unit sale of standard-size washers for the first five months of 1948 over the corresponding five months of last year has been reported by the American Washer & Ironer Manufacturers Association.

Sales for the first five months of 1948 totaled 1,873,090 units compared to 1,439,934 for the same period last year. May sales were 362,658 washers compared to 313,724 for May, 1947; this represents an increase of 15.5% for the month.

EATON PERMANENT MOLD GRAY IRON CASTINGS



Meet Critical Requirements for Refrigeration Parts

Free machinability, dense non-porous structure, freedom from leakage under pressure, freedom from distortion, ability to take a mirror finish—these are qualities which recommend Eaton Permanent Mold Gray Iron Castings for a wide range of applications in refrigeration and other domestic appliance production.

Millions of Eaton Permanent Mold Gray Iron Castings are used annually for such critical parts as refrigeration valve plates, pistons, connecting rods, crankshafts, cylinder blocks, cylinder heads, bearing retainers, pump bodies, and many others.

The non-porous structure of Eaton Permanent Mold Gray Iron Castings makes them capable of holding liquids and gases under high pressure without leakage. Proper annealing insures that the castings will hold size and not distort after machining.

Eaton Foundry Division engineers will be glad to work with you in adapting Permanent Mold Gray Iron Castings to your own products. Send for your copy of the illustrated booklet, "A Quick Picture of the Eaton Permanent Mold Process for producing Gray Iron Castings."

© 1947, EATON MFG. CO.

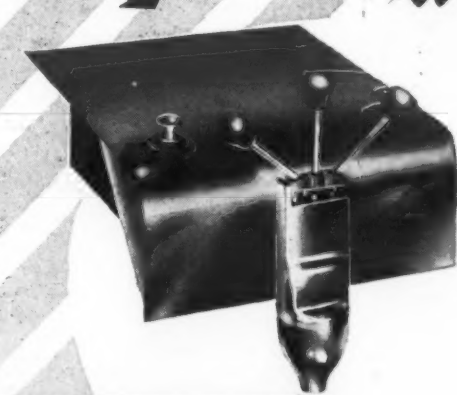


THE EATON PERMANENT MOLD MACHINE IS A SYMBOL OF THE QUALITY OF GRAY IRON CASTINGS PRODUCED BY THE PERMANENT MOLD PROCESS.

EATON
MANUFACTURING COMPANY
FOUNDRY DIVISION

9771 French Road • Detroit 13, Michigan

THE MOST REVOLUTIONARY THING IN BARS SINCE PROHIBITION!



The 3-N-1

What it Does...

- Soda, cola, and ginger ale from one faucet.
- No discoloration of drinks.
- Syrup gravity fed.
- Six seconds for 8 ounces.
- Compact-Labor Saving-Profit Making.

The exclusive locked in "BOOSTER" gives up to 25% more carbonation—plus perfect mixture from tank or carbonator...

Dealer and Distributor Inquiries Solicited

AMERICAN DISPENSER CORPORATION
624-628 South Paulina Street
Chicago 12, Illinois

Ads on Room Cooler Simplicity, Low Cost Win Over Dubious Homeowner Prospects

DALLAS, Tex.—A lot of potential room air conditioner sales are lost simply because the average homeowner believes such coolers are intricate machines which can be installed only at great expense, according to Norman Freeman, of Titcher-Goettinger, a local department store.

Titcher-Goettinger is energetically merchandising Carrier air conditioning units from ¾ hp. up to 5 hp. units. When the first room coolers were placed on display in the appliance department, there was only a mild current of interest, Freeman reported, although a few professional men, notably lawyers and doctors, bought units.

"We're aiming at both the officeholder prospect and the average homeowner," Freeman said. "And we have found through close questioning of the usual customer that there is almost abysmal lack of knowledge about air conditioners on the part of the public."

"Therefore, we are running a series of educational newspaper advertisements, which point out the low initial price of the home air conditioner, how it operates, what can be expected from it, etc."

These advertisements feature two Carrier units marked at \$505 and \$639.50. Floor models in actual operation are displayed at various points around the store.

As soon as the first advertisement was run, explaining among other things that the unit does not require plumbing and does not greatly increase the electrical bill, the store received many telephone inquiries. When turned over to the sales office, the inquiries almost invariably resulted in a sale.

"The public seems anxious for information on package air conditioners," Freeman said, "particularly those who have saved considerable amounts of money during the war years, and wish to spend it on improving their home life."

"Almost every homeowner customer we have sold to date has always yearned for an air conditioned home, but had no idea that this was actually within his reach."

Most popular size room conditioner which is being sold by Titcher-Goettinger is the ¾-hp. window unit.

"Selling cool sleeping hours via the room conditioner route has proved our most potent sales tool," Freeman declared. "Many men who spend little time at home during the daylight hours are not concerned whether the house is cool during the day—but when sleeping time comes, they want a comfortable, cool bedroom."

Mobile Vestibule Cuts Locker Plant Expenses

MINNEAPOLIS — Locker plant operators report an economy of up to 20% through use of Vest-I-Dor, a portable vestibule developed during the war by George B. Herman, president of Allied Store Equipment Co., here.

The device is made of heavy white duck walls and ceiling and is engineered to fit any standard locker plant. It is said to "lock in" cold air and increase customer comfort.

After using the Vest-I-Dor for three months, Marvin W. Hewitt, of Hewitt Packing & Processing Co., Lindsey, Wis., said he was "amazed" at the reduction in his electric power bill.

Vest-I-Dor is reported to have eliminated "London fog" overnight in a Willimantic, Conn., plant. Another operator said "we used to pry open the door with a crow bar, it was so warped and covered with ice, but the Vest-I-Dor has eliminated all of that."

Frozen Food Firm To Market Line with Haldorf 'Sno-Case'

LONG BEACH, Calif. — Market Distributors, of Long Beach, distributor for Pictsweet Frozen Foods, has standardized on the Haldorf "Sno-Case" for resale to their retailers.

Carload shipments of the 18-cu. ft. units have been going forward from the Haldorf plant in Philadelphia, for the past three months.

The unit selected is a variation of Haldorf's 4718-C Sno-Case. In addition to regular wrapped refrigeration coils, the unit features vertically mounted cold-plates, which serve as both partitions and as extra refrigeration surface. The unit utilizes a Copeland hermetically sealed compressor.

Laundromat Trade-Ins Bring \$75

INDIANAPOLIS — Westinghouse appliance dealers here have been offering trade-in allowances up to \$75 on new Westinghouse Laundromat automatic washers. The offer is good for two weeks.

Ponon Becomes Head of Iroquois Commercial

NEW YORK CITY — Irving A. Ponon, onetime national sales manager for Refrigeration Corp. of America, has resigned to become president of Iroquois Commercial Corp., New York City.

Previous to associating himself with Refrigeration Corp. in 1942, Ponon was connected with the General Electric Co. in both its merchandising and customer-financing divisions. He was also with General Motors Acceptance Co. and the Commercial Credit Corp.

When interviewed regarding the operations of Iroquois Commercial Corp., Ponon indicated that its principal function is to assist in the increased sale of ice cream, frozen foods, beverages, candies, and other items requiring refrigeration.

"The Iroquois plan," he said, "enables the manufacturers and distributors of such products to expand their distribution without increasing their financial burden."

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- Refrigeration Condensing Units
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At one time, compressor oils posed a costly problem for an important manufacturer of refrigeration equipment. Wax separation took place at low temperatures. Other refiners' oils were tried, with only partial success. It was not until a year ago, when a Suniso Oil was adopted, that the problem was overcome.

Shown above is the filling of a

brand-new compressor with Suniso Refrigeration Oil. This is a familiar scene in plants making refrigeration and air-conditioning equipment. They probably use more Suniso Oils than all other brands combined.

This overwhelming preference is a direct result of qualities available only in the six Suniso grades. Suniso Oils are marked by extremely low pour-

points. In many cases their wax-separation points are many degrees below industry requirements. They have unusual resistance to chemical change when mixed with Freon, methyl or methylene chlorides, and other modern refrigerants.

For a copy of the 52-page illustrated bulletin "Lubrication of Refrigeration and Air-Conditioning Equipment," write Department RN-7.

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Weak Capitalization, Over-Franchising Signal Danger to Dealer In Today's Normal Market

By Harry M. Kelley, Appliance Sales Manager, Frigidaire Division, General Motors Corp.

(Following are excerpts from a talk given by Kelley at the mid-year Leadership Conference of the National Electrical Retailers Association in Chicago earlier this month.)

The buyer's or normal market we have been talking about getting prepared for, for several years now, has pretty much arrived and we find ourselves just about as unprepared as ever to sell sizable quantities of merchandise at a profit in a normal market.

Naturally, I was perhaps often guilty of an attempt to leave the impression that it would arrive sooner than anyone anticipated, because of my conviction that we should all be prepared before the normal market actually arrived.

Selling Requires Effort

Today I need not tell you that with the exception of some brands of refrigerators, all major appliances in most parts of the country are already in a market situation where they must be sold. So today let's throw away the crystal ball and talk about selling major appliances, and pay particular attention to the results that will surely happen if the retailer cannot or will not put the necessary amount of selling effort into the sale of major appliances.

The war and the soft, short supply years since the war, have almost completely wiped out the results of years of effort in cultivating the art of salesmanship that reached its climax in 1940—seven and a half long years ago.

Sure, we talk about our salesmen today, but actually there are very, very few salesmen among them who are really worthy of the name—they more nearly meet the requirements of other members of the store-keeping industry.

Webster says a salesman is one that sells goods. Certainly that is a short, simple definition. But even as short as it is, notice please, he says—sells goods.

The U. S. Department of Labor divides salesmen into three classifications.

SALES CLERK—Usually stationed behind a counter, where his chief task is to receive cash payment for the article selected by the customer, wrap the article and give, together with any change, to the customer.

SALES PERSON—Applied to jobs that involve no solicitation of the customer, but that usually do require, to a greater or lesser degree, a special knowledge of the merchandise sold. The sales person is generally stationed on the selling floor, where he displays, explains, and sells mer-

chandise to interested individuals.

SALESMAN—Applied to jobs that involve a personal solicitation of the customer by the selling agent, frequently outside of the store. In general, salesmen sell a higher priced article and must be able to persuade indifferent prospects of its desirability.

Definition of Salesman

For my money, none of the other definitions I have ever seen really define a salesman as nearly as the following one: "A salesman is a person who has sold something that the purchaser did not know he needed or wanted." Let's just pause for a moment to analyze this definition.

You will note that it starts out by saying, "A salesman is a person who has sold something. . . ." There are many so-called salesmen today who have never actually sold anything. They have waited on trade, helped customers make selections, and taken orders, but they have never actually sold anything to anybody.

Our definition goes on to say that "A salesman is a person who has sold something 'that the purchaser did not know he needed or wanted.'"

It is easiest to sell something that people know they need and want to buy. It is harder to sell something

that people know they need but do not want to buy. It is a tough job to sell something that people don't know they need, and therefore, have no desire to buy.

Unearthing New Needs

When a person has sold something that the purchaser did not know he needed or wanted, then and only then, in my opinion, does he meet the qualifications of a full-fledged salesman.

Otherwise, he is a sales clerk, a sales person, an order taker, or what-have-you. And not until he has succeeded in becoming a full-fledged salesman will he have experienced the spine-tingling thrill of getting a tough prospect to sign on the dotted line.

Good salesmanship is something more than just selling merchandise. Someone once said that a good salesman is one who makes a lot of sales. That's a rather obvious deduction, but it may not be true.

The good salesman who does not also make a lot of good friends is not an asset to his firm. Sales persons who make store enemies through misrepresentation and customer dissatisfaction are worse than no representatives at all.

Today, we actually have salesmen who sit at a desk in a swivel chair right on the showroom floor and who answer customers' questions while seated and while the customer stands.

Salesmen who cannot and will not give a good product demonstration—salesmen who will let customers remain unattended as long as 30 minutes and let them walk off the floor unserved—salesmen who are not even courteous.

Today we are faced with a new situation which in time may become very serious in its effects upon our industry. I refer to the tremendous increase in the number of major appliance retail outlets.

Number of Outlets Tripled

Let us consider just how serious the situation really is. Pre-war, there were in the United States about 25,000 major appliance dealers. Best estimates today indicate there are between 70,000 and 80,000 major appliance dealers and this does not include many chain stores who have expressed a desire to get into the appliance business when they can get good lines.

As a result of this tremendous increase in the number of appliance dealers, we believe that a very high mortality of dealers is bound to come in the not-too-distant future. It is unfortunate that we have to go through such adjustments in our business cycle, but I am sure we can all agree that such an adjustment is inevitable.

Dealer Mortality Factors

Let us briefly look at some of the more important factors that contribute to dealer mortality, such as—
Lack of capital. Many appliance dealerships have been started on the proverbial "shoe-string," and without sufficient cash or available credit, they cannot be expected to survive when the going gets rough.

Inability to secure franchise of brand name products that will have consumer acceptance in a buyer's market.

Poor store locations. In the highly competitive days ahead, the attractiveness and location of the dealer's store will play a large part in his success or failure.

Inexperience in major appliance merchandising which may result in a disregard for the very fundamentals of successful appliance merchandising.

Failure of the manufacturer to guide the dealer properly through sound counsel and advice.

Poor service. Due to lack of experience, the dealer may not attach proper importance to the part good customers service plays in successful appliance merchandising. As a result, he may also find himself with service obligations to his users on merchandise of poor design or construction that cannot be kept operating satisfactorily or an orphan brand that cannot be serviced.

Inability of the dealer to handle trade-ins on a sound basis and successfully merchandise used appliances. Since an increasing proportion of all major appliance sales, particularly refrigerators, will represent replacements, if the dealer is unable to handle the replacement market on a profitable basis, he will have little chance of success.

Lack of aggressiveness and initia-

Issues Warning



HARRY M. KELLEY

tive necessary to cope with the sales problems of a normal market. And every dealer should realize that a normal market is a buyer's market. Whatever success a dealer may have enjoyed during the short-lived seller's market is no guarantee of success when tough, competitive selling again becomes the rule.

If a dealer is to steer his operation through this dangerous period successfully, he must recognize the basic fact that every major appliance that is built will be sold to someone at some price. It will find its place in some user's home. Even the poorest of these appliances can be expected to give a few years of service and during this time the homemaker will be out of the market.

Perils of Price Cutting

When price cutting has started, it will call for careful sales management on the part of the ambitious, aggressive retailer who receives any sizable portion of his total volume from major appliances, and who expects to succeed and maintain a permanent business. If he tried to meet price cutting with price cutting, it will spell his down fall.

No dealer who is to survive can hope to meet the cut prices of a dealer who is forced to liquidate his inventory. Because no matter how far he may go in meeting the situation, the liquidating dealer still must liquidate. To push the liquidating dealer into an even greater loss will bring no benefit to the dealer who wants to survive.

How to Meet Market Challenge

I humbly suggest to you that you first agree that we are already pretty much in a normal market and then seriously consider doing each of the following things:

1. Increase the size of your sales organization to normal market operating strength, and—

- (a) Select them very carefully.
- (b) Train them thoroughly.
- (c) Compensate them adequately.
- (d) Supervise them effectively and constantly.

2. Get the best lines of appliances you can secure, then—

- (a) Take full advantage of the training facilities, selling materials, and counsel of the manufacturer and his local representative.
- (b) Reduce the number of brands carried to a minimum and when practicable concentrate on one brand of each type of product you sell in orders to—

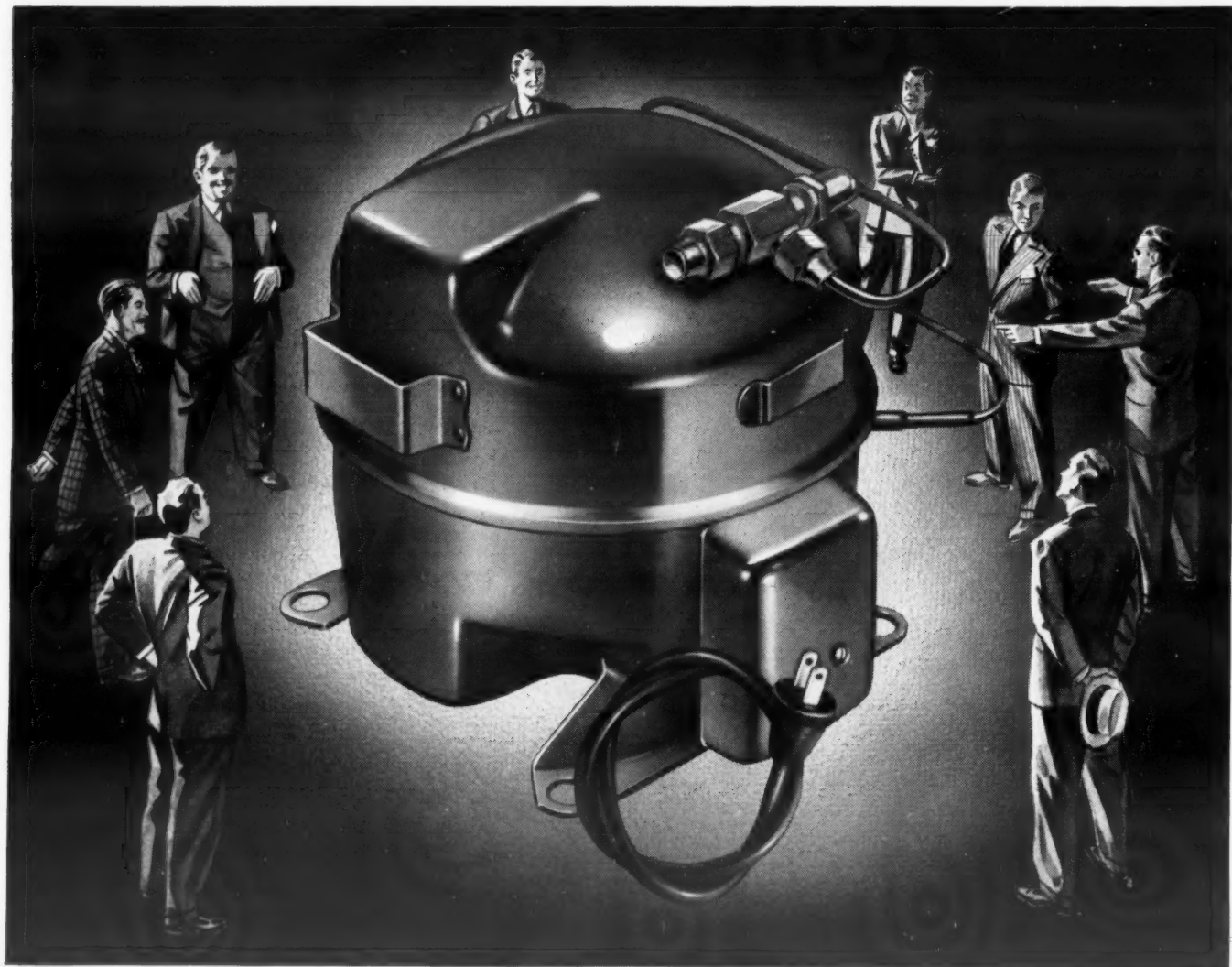
- (1) Tell a more enthusiastic, sincere sales story.
- (2) Simplify your training job.
- (3) Hold your inventory to a minimum.
- (4) Accomplish fastest possible turnover.
- (5) Make best possible use of your capital.
- (6) Be more important to each of your suppliers and thereby secure greater concentration of their efforts in your behalf.

3. Immediately establish a sales program to include—

- (a) The necessary effort behind each different kind of appliance you sell.
- (b) The necessary amount of the right kind of outside selling.
- (c) The necessary kind and degree of activity in trading in and merchandising used appliances.

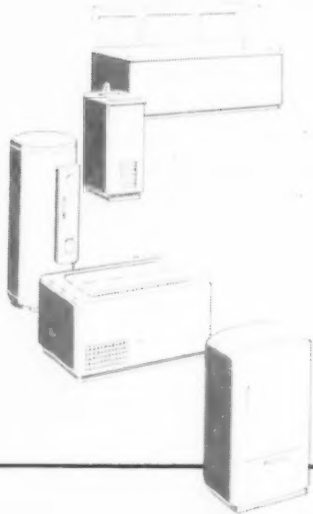
4. Wherever possible handle your own service on new as well as used appliances and recondition your own trade-ins.

5. Establish a sales policy now that will insure you against your store being among the missing when the retail appliance business again returns to a completely normal market and to the number of retailers the sales volume will support.



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Tecumseh, Michigan

Quick Freezing Facilities Allow Caterer To Serve Customers on Shorter Notice

ST. LOUIS—A high-speed catering service which offers the customer a huge choice of quick-frozen baked goods and desserts available at an hour's notice, has proven extremely profitable for Mr. and Mrs. Carl Pfeiffer, operators of Pfeiffer's Pastry Shop on North Kingshighway Blvd. here.

Mr. and Mrs. Pfeiffer have developed this service during the past two years as an outgrowth of a more standardized catering service offering specialty cakes, stollens, cookies, etc., previously. Before installing large capacity freezers, the Pfeiffer bakery frequently "lost out" on catering orders because such orders would be received after 11 o'clock in the morning on the same day desired when it was impossible to produce them as requested.

Now, however, through the installation of two 18-ft. Bishop compartmented sharp freezers, and a 4-door low-temperature reach-in box, it is possible to keep a long list of baked specialties, ice cream rolls, whipped cream products, etc., always available for immediate delivery.

"We have increased our catering service tremendously since we have incorporated this refrigerated storage space in the bakery," Mrs. Pfeiffer said. "Including everything from custom decorated cakes to ice cream rolls, Boston cream pies, ice cream pies, charlotte russe, cream puffs, specialty desserts, lady fingers, etc."

"Almost every wedding party, afternoon tea, luncheon, etc., for which we provide catering service brings about curious or interested calls from other customers—and thus, the department is kept busy through the entire season, until hot weather arrives, and puts a stop to such entertainment."

The two Bishop sharp freeze boxes are of the lift-up lid type, and are divided into six compartments. Extremely perishable, whipped-cream or meringue-trimmed dessert specialties are kept in these, as well as unbaked biscuits, cookies, stollens, etc., which may be quickly thawed out and baked to order when called for.

The catering service can handle anywhere from four or five up to 30 people with ease, since a sufficiently large inventory of sharp frozen baked products is kept on hand for the purpose. Several new items have been added to the 1948 season, based on the number of requests for them, and the Pfeiffer Bakery has made up a list from which prices and types may be quoted over the telephone.

The large reach-in refrigerator is similarly used for less perishable items, such as cookies, lady fingers, teacakes, candied goods, and the faster-moving items. A large room at the left side of the bakery is devoted to this space, with a table for special packaging of frozen baked goods.

"The refrigerators are an answer

to the problem of human forgetfulness," Mrs. Pfeiffer said. "Quite frequently, a hostess will make elaborate plans for a wedding reception, a shower, engagement party, etc., and go along blissfully unaware that she cannot order her baked goods the same day. When she finds, however, that we can produce almost anything required in the way of desserts or pastries, she is always tremendously relieved and grateful."

Another advantage of the refrigerated cases is the fact that the Pfeiffer bakery can utilize slack periods to make up expensive, specialty dessert concoctions which may be sharp frozen and held indefinitely.

Thus, it is never necessary to "drop everything" to take care of a long-profit catering job—and most of the business firms, hostesses, etc., who regularly employ caterers, are already well familiar with the celerity with which the Pfeiffer bakery shop can fill orders.

Dairy Case Replaces Domestic Box For Storing Large Stocks of Biologicals

RENO, Nev.—Instead of storing biological drugs in the usual domestic type refrigerator, Hale's Drugstore here is using a service display case—and to great advantage, according to William Locke, store head.

"We carry a \$4,800 stock of virus, serums, penicillin, and veterinary biological items, which is one of our most important prescription service sales-builders," Locke pointed out.

"Recently, when it became obvious that the old household refrigerator we had used in the past was too small and inefficient for the job, I studied the matter carefully and in the end purchased a double-door, glass-front dairy box."

This Seeger refrigerator has a capacity of 16 cu. ft. and has been remodeled to permit eight tiers of stainless steel shelving on either side. Biologicals for humans are on one side and animal supplies on the other. Every shelf has a place

marked for a particular product, so that restocking is a simple matter.

"We have capitalized on this box in many ways," Locke said. "First, when we receive an order for any item, the pharmacist on duty can see at a glance whether we have it in stock, without opening the refrigerator door. This is important when emergencies arise, particularly in the case of animal disease epidemics when hurried stockmen want to assemble their drug products swiftly," Locke further indicated.

"Next, the large capacity means that we can keep large size packages of every item on hand, doing away with trips to the wholesale house when customers want to buy sizable amounts at a time. No customer likes to wait while we send for something he feels we should have in stock at the moment he needs it."

"Third, we use the refrigerator to impress physicians, veterinarians, and

even the lay public with the thorough inventory of biologicals which we carry in stock.

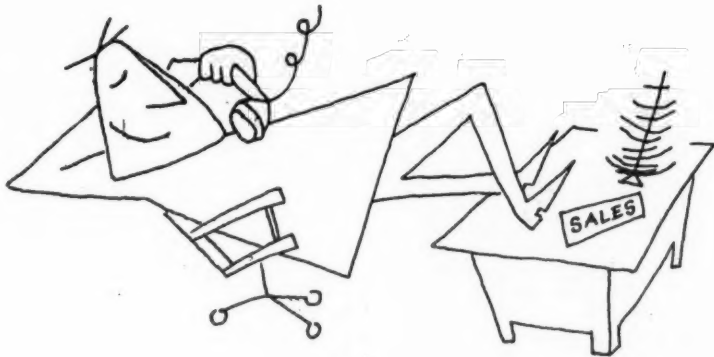
"Whenever we have a prescription brought in for any of these items, we invite the customer to walk back into the prescription department and check our large stock. This box always makes an excellent impression, and the good will thus accomplished brings us valuable enthusiasm from the customer."

Lastly, Locke said, the fact that the refrigerator is opened only when a biological drug product is to be removed helps to keep operating costs down. He moved the old refrigerator out into the front of the store, where it chills beer, soft drinks, and mixers.

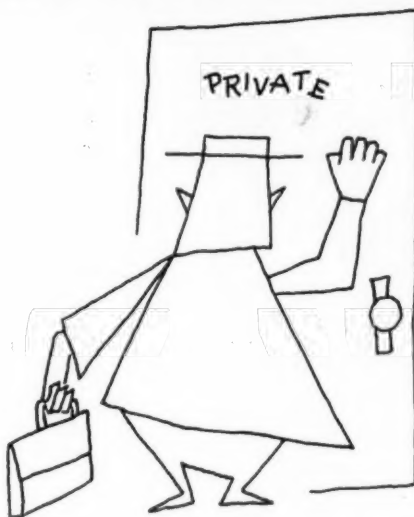
F. W. King Named Mfrs. Agent For Buxton In Southern Area

LOS ANGELES—F. W. King, of Associated Factories Distributors, Jackson, Miss., has been appointed southern manufacturers' agent for Buxton, Inc., designer and manufacturer of commercial refrigerators, E. George Sanders, national sales director, announced.

1947 ORDER-TAKING . . .



1948 ORDER-MAKING . . .



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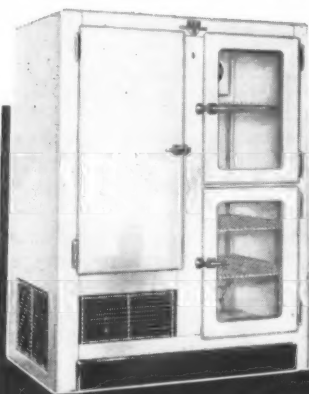
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SMYRNA, DELAWARE

U.S. Appeals Court Upholds Validity Of 'Recold' Water Defrost Coil Patent

LOS ANGELES—A U. S. district court decision that the patent covering the Recold water defrost coil, held by Refrigeration Engineering, Inc. here, is valid and that the water defrost coil manufactured by York Corp. infringes that patent, has been sustained by the U. S. Circuit Court of Appeals for the Ninth District.

York Corp.'s case was built on the contention that all elements of the Recold water defrost coil, which uses ordinary tap water to defrost coils, were known and in general use before the McAdam patent was issued to Refrigeration Engineering, Inc. in 1940.

York, which has made a water defrost coil for years, had also sought an injunction restraining Refrigeration Engineering, Inc. from bringing any action charging York with infringement.

Both district and appellate courts sustained Refrigeration Engineering, Inc.'s contention that, though the elements of the apparatus were old and known, their combination to do the job claimed was new and as such was patentable.

When York contended that it had not infringed on the McAdam patent because its unit did not supply any refrigerated space in which to operate as it alleged the patent required, the appellate court termed the argument "interesting but not persuasive" and "ingenious but fruitless."

The district court, in the latter part of 1946, had awarded damages,

costs, and attorneys' fees to Refrigeration Engineering, Inc.

Specifically, the appellate court sustained the validity of one of the 14 claims that comprised the patent and affirmed the validity of two others. But it denied the validity of the remainder on the grounds that the combinations outlined in these claims did not include all essential elements of the invention.

The Recold water defrost coil consists of a coil, a spray-head over the coil, means of supplying water to the spray-head, a self-draining conduit leading from the spray-head to a point outside the refrigerated space, a drip pan under the coil, and a conduit leading from the drip pan to a point outside the refrigerated space.

The coil can be defrosted while maintaining a temperature below freezing within the refrigerated space.

This is done by supplying water from a source outside the refrigerated space to the spray-head, where it is sprayed on the coil, caught in the drip pan, and drained away by one of the conduits.

Unused water remaining in the spray head is drained by the other conduit. By these conduits all water is removed from the refrigerated space without being frozen and without materially affecting the temperature of the space.

Excerpts from the opinion of the appellate court follow:

APPELLATE COURT FINDINGS

"York Corp. (herein called plaintiff) brought this action in the district court for a declaratory judgment that the McAdam patent, No. 2,219,393, issued Oct. 29, 1940, was invalid and for an injunction restraining Refrigeration Engineering, Inc. (herein called defendant), owner of the patent, from bringing or prosecuting any action charging plaintiff with infringing the patent.

"Defendant filed an answer which contained a counter claim . . . charging that plaintiff had infringed the patent and praying for an injunction against such infringement and for an accounting of profits and damages.

"Plaintiff filed a reply . . . denying infringement and alleging that the patent was invalid. There was a trial resulting in judgment from which both parties appeal.

"Plaintiff appeals from that part of the judgment which held that claim 13 of the patent was valid and infringed by plaintiff, enjoined such infringement, dismissed the complaint, awarded costs to defendant, directed that defendant recover damages and attorneys' fees from plaintiff, and ordered an accounting for the ascertainment of such damages and attorneys' fees.

"Defendant appeals from that part of the judgment which held that claims 1-12 and 14 of the patent were invalid.

"The patent relates to an invention of a 'defrosting device' employing ordinary 'tap water' from city mains or other source, for removing frost and ice from refrigeration coils designed to be installed and to operate within a space employed in the refrigeration of commodities (referred to herein and in the specifica-

tion and claims of the patent as a 'refrigerated space') which 'space' is required to be continually maintained at a temperature below the freezing point of water."

"(From the testimony it appears that defendant's patented device and the accused device of the plaintiff, were designed by the parties primarily to be utilized in commercial-type refrigeration installations and not in or as part of small home devices, although the latter use is possible.)

"A device embodying the claimed invention is described in the specification. In that device, the coil has fins, a fan is used to blow the air of the refrigerated space over the coil, and an electrically controlled valve is used as a means of supplying water to the spray-head.

"It is clear, however, from the specification that the fins, the fan, and the valve are not essential elements of the claimed invention.

BASIS OF THE SUIT

"Plaintiff alleged that the patent was invalid 'because the applicant therefor (McAdam) was not the original and first inventor of the alleged invention described and claimed therein, but the same, in all its material and substantial parts, was invented, known to and used by others in this country before his alleged invention or discovery thereof; was patented and described in printed publications in this and foreign countries, or more than two years prior to his application for patent; and was in public use and on sale in this country for more than two years prior to his said application.'

"Defendant denied these allegations, and the trial court found that they were untrue. Plaintiff specifies the findings as error.

"Defendant concedes that all elements of the claimed invention were old and well known to the refrigeration art prior to such invention. Its position is that McAdam's arrangement and assembly of these old elements has created a new combination which unites these old elements in such manner as to provide or create a new entity divorced from any one element; that in the 'composite,' or union of all its elements, the effect produced by their joint action is a new, final, and combined result in the art of refrigeration never produced before; and that this combination introduced a new function, in an old art by producing a new, useful, and final effect, result and method which performs an old function in the art of refrigeration in a new and more advantageous way. . . .

APPARATUS OR METHOD CLAIMS

"Plaintiff urges that the contentions of defendant (in effect) turn *apparatus claims* into *method claims*, and that method claims were abandoned by defendant during the prosecution of the McAdam application and were cancelled, as a result of which the patent is for an apparatus—a mechanical device which consists of a combination of old parts—all in combination with a refrigerated space.

"It argues that 'it was old to use all of these parts in combination with a refrigerated space * * * the whole purpose of the unit was to refrigerate a space * * * prior patents and prior uses show that such units were so used.'

"While abandonment of method claims is thus suggested argumentatively in plaintiff's brief, no mention is made concerning such an issue in the findings of the court, the statement of points to be relied upon on appeal, or in plaintiff's specifications of error, and the contention will not be considered here.

"In any event, the expert witness on behalf of defendant testified that all of the claims of the patent are apparatus claims, and that each of the claims is for a *combination of structural elements*. There is no method claim among them.

"Defendant meets plaintiff's contentions with the averment that unless it can be shown that the combination is old, it is not open to the attack here made upon it, since the law does not look to the elements or factors of an invented combination as the subject for a patent, but looks only to the combination itself as a unit distinct from its parts. . . .

"Plaintiff did not, in its pleadings, allege that the patent or any claim thereof was invalid for lack of invention. However, it introduced evidence tending to show that the McAdam combination did not involve invention.

"Defendant introduced evidence

tending to show that it did involve invention, and the court so found. Plaintiff specifies the finding as error. . . .

"The patent contains 14 claims. As indicated above, claim 13 was held valid and infringed, and claims 1-12 and 14 were held invalid. Plaintiff specifies as error the holding as to claim 13.

CLAIM THAT WAS UPHELD

"Claim 13 reads:

"In combination with a refrigerated space, a coil adapted for periodic defrosting, a spray-head positioned to distribute water over said coil for defrosting thereof, a fan to move air of said space over said coil adapted to be discontinued during the defrosting periods whereby the air of said space does not rise above the freezing point of water during the defrosting period, a drip pan disposed below said coil to receive water and ice gravitating from said coil, a self-draining conduit leading from said drip pan to points remote from said space, and an inclined water supply conduit leading from a point remote from said space to said spray-head; said water supply conduit at said remote point provided with an opening normally open to the atmosphere whereby the conduit and spray-head respectively are self-draining, and means for periodically supplying water to said supply conduit during period when said fan is inoperative."

"Thus claim 13 describes a combination which includes all essential elements of the invention—a coil, a spray-head, means for supplying water to the spray-head, a self-draining conduit leading from the spray-head to a point outside the refrigerated space, a drip pan under the coil and a self-draining conduit leading from the drip pan to a point outside the refrigerated space.

"We therefore agree with the trial court that claim 13 is valid.

"Plaintiff contends that defendant's device (described in claim 13) is incomplete without the element of 'a refrigerated space,' as a part thereof, add that, since plaintiff does not manufacture or sell a refrigerated space, there is no infringement 'unless an equivalent element is supplied.'

"While this argument is interesting it is not persuasive. The stipulation (above referred to) and the evidence clearly reveal that the accused device of plaintiff was designed, built and advertised to *operate within*, and in conjunction with, a refrigerated space in the same manner as the device of the defendant.

"Claim 13 contains the phrase 'In combination with a refrigerated space' but this does not mean that a refrigerated space is an element of the invention.

"Instead, it merely indicates where the invention is intended to be used. We take it that the claim might with equal propriety have read 'to operate in conjunction with' or 'in association with' a refrigerated space, or perhaps with more accuracy, 'within' a refrigerated space. . . .

"At the close of all of the evidence, plaintiff moved to amend its complaint to add the following charge:

"Defendant is barred from the relief sought in the McAdam patent because it has misused the patent in an effort to control competition on unpatented devices."

"Plaintiff offered this motion to make the pleadings conform with what it asserted to be the proof. Actually, there was no proof that defendant has misused the patent. The motion was properly denied.

"We do not agree that claims 10 and 11 are invalid, for the combinations therein described include all essential elements of the invention. We therefore hold claims 10 and 11 valid.

"The judgment is modified so as to hold claims 10 and 11 valid and, as thus modified, is affirmed.

"(Endorsed:) Opinion. Filed June 29, 1948. Paul P. O'Brien, Clerk."

engineers select TILCO FIN TUBING for

Blast Coils, Cooling Coils, Unit Heaters, Direct Expansion Refrigeration Units, Central Plant Heating and Cooling Systems, Condenser Tubes, Evaporator Tubes, Air Conditioning and Dehydration Units and Systems, and for many other types of heating or cooling equipment

because

HIGH PERFORMANCE
results from the
segmented fin design and the
Metallic Bond

FLEXIBLE APPLICATION

Steel fins can be welded
to Steel tubes

Monel fins can be welded
to Steel tubes

Steel fins can be welded
to Cupro-nickel

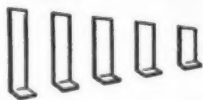
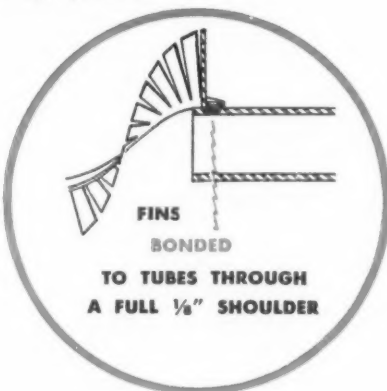
Copper fins can be solder
bonded to Copper tubes

Fins may be spaced as wide as
three rows per inch or as close as
eight rows per inch

Fins may be any desired height
starting with 1/4"

Tubes can be as small as 3/8" in di-
ameter or as large as 6" in diameter

LOW PRESSURE DROP results from thin fins and clear passage over the fins



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TILCO-FIN TUBING
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Suitable designs of narrow strip fins (1/8" wide) provide an increase of over 2 to 1 ratio in the heat transfer co-efficient compared to continuous fins.

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Valves, Driers, Strainers,
Charging Lines, Quick Couplers,
Forged Flare Nuts and Fittings

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INSIDE DOPE

by GEORGE F. TAUBENECK

(Concluded from Page 1, Column 1)

Much, much later, Louis and Conn met while in the uniform of the United States Army. After tipping a few friendly glasses, Conn confided:

"I figured on whipping you, Joe. Then I figured I'd hold the championship . . . and rake in all the exhibition dough I could . . . at least two years before I'd fight you again."

Grunted Louis:

"Whaddaya mean, 'hold the championship,' Billy? You had it in your mitts for a moment, but you couldn't even hold it another two rounds."

(Ahead on points, Conn got cocky and strove for a knock-out. He was knocked out instead.)

Jack Blackburn, his ring-wise trainer, cured Joe of his unfortunate habit of getting up too soon after a knockdown. (Joe was knocked down often in his early bouts.)

"Clear your head while you're on the floor," Blackburn drilled. "Rest yo'self. A knockdown ain't no disgrace so long as you win."

Joe got the point.

"Guess you're right, Jack," he agreed. "I can't get on my feet so quick that the fans won't know I was down."

Shortly before Joe's second (and last) fight with behemothian Buddy Baer, Trainer Blackburn fell ill.

"Cain't be your 'second' this time, Chappie," mourned Blackburn. "Don't think I could climb up and down dem steps each round."

"You won't strain yourself," Louis reassured Blackburn. "You won't have to climb up more than once."

(Louis made good on his promise. His faithful 'second' saw Joe win by a knockout in the first round.)

Joe Louis, Gentleman

Now that Joe Louis has announced his retirement (and we hope, for his sake, that nobody talks him out of it) it seems fitting for a Detroit to place a few serious anecdotes about Gentleman Joe Louis into the record of his achievements. As our good friend, H. C. L. Jackson, writes:

"The things he's done inside the ring, striking as they have been, are, as far as we are concerned, nothing to the kindly deeds he's done, outside."

"Take the time we sat behind him at a World Series ball game. Before the first inning started, a woman tapped us on the shoulder. We turned. Beside her was a bug-eyed boy, maybe 12 years old. She whispered:

"Do you suppose Mr. Louis would autograph this score-card for my boy?"

"We leaned forward and said: 'Joe' (he doesn't know us from Adam), 'there's a boy here who'd like

your autograph on his scorecard.'

"Up came a hand as big as a ham, reaching for that program."

"'Sure,' he said—and that started it."

"From all parts of that section of the stands came scorecards. Joe had a stack of them. Soberly, he wrote 'Joe Louis' again and again, and we found ourselves in the supporting role of relaying autographed programs back, and passing him more."

"The game started. Joe didn't see it. Joe just wrote his name. The first inning ended and, Joe just wrote his name."

"Through the second, third, and fourth innings, Joe just wrote his name."

"At that point, the chap next to him got restless. He murmured:

"'Oh, come on, Joe. Watch the game. You didn't come here to sign scorecards!'"

"Joe answered softly, certainly not for us to overhear, and there was a trace of embarrassment in his voice:

"'Aw, the kids sort of like to have me write my name on their scorecards,' and—"

"Joe signed every one. . . ."

During the war, a son of Mr. and Mrs. Jimmy Secor of Detroit, was stationed in the Aleutians. Came a letter from that son:

"For the last three days I've been taking Joe Louis around. He told me that when he gets to Detroit, he'll phone you and give you a report on where I am and how I'm doing."

"Fsho," snorted Secor, "don't you get excited, Mother. I'll bet with all his traveling, Joe's made that promise to a thousand boys. He just wouldn't have time to do things like that."

Three weeks later, the Secor phone rang. A soft, heavy voice said:

"Is this Mrs. Jimmy Secor? This is Sgt. Joe Louis. I was with your boy for three days in the Aleutians and I told him I'd give you a ring when I came to Detroit. He's feeling fine, and have you any questions you'd like to ask?"

Detroit's Fred Cousins, during World War II, had a job that kept him skittering in and out of Camp Shanks, N. Y., which was Joe's headquarters when he wasn't away on a trip.

A little while after D-Day, according to Mr. Cousins, the combat troops began dribbling back to Camp Shanks. And some of those men were mighty short on cash. They'd go to the canteen and look longingly at someone buying a coke or a beer. And then some canteen-worker would come along and say:

"Don't say anything about this but—have something on Joe Louis."

Joe was leaving money at that canteen for the express purpose of helping out GI's who were short on cash. . . .

One could go on and on with tales like these. Joe Louis has been a credit to sports, to his race, and to all America.

What's Good for the Industry Is Good for All of Us

Ever since its inception, the NEWS has been dedicated to the proposition that it's better to help build our industry than it is to show a fat profit—or even any profit—in any single month or year.

At times, that guiding principle has cost us plenty of money. Cynical readers would be surprised at the business we turn down, and the advertising campaigns we stop, because said advertisements might hurt a competitor, harm the advertiser himself in the long run, or be a detriment to industry progress.

What's more, cynical advertisers and advertising agencies often are amazed to discover that the editorial staff of the NEWS is four times as large as its advertising staff. The reverse (four salesmen for one editor) is usually the formula on which "trade papers" operate.

Call it enlightened self-interest, or a sense of unselfish responsibility, or what you will, we firmly believe in this principle. We're more interested in helping the industry to grow and grow right than we are in making an extra dollar.

In the long run, we're sure that this principle pays.

When an advertiser spends his good money to promote the welfare of an entire industry, rather than to sell his own product at the expense of others, he's working our side of the street.

One such unselfish, enlightened advertiser is the C. A. Nevinger Co. of Greenville, Illinois.

Judging by reader reactions, the bulk of our subscribers have been impressed and puzzled at one and the same time by the recent Nevinger series of advertisements in the NEWS. (They're puzzled because Nevinger's magnanimousness is so unusual).

Each advertisement in this extraordinary series (the 25th and last of which appears on page 17 of this issue) has been devoted to the advancement of the air conditioning industry as a whole.

Instead of extolling the merits of his own air conditioning units, Carl Nevinger has pointed out and pointed up the various markets for every manufacturer's air conditioning units—and suggested ways and means for all dealers to cash in on these markets.

Naturally, Nevinger will benefit when more specialty dealers are convinced—through this series of advertisements—that air conditioning represents a *plus* business for them. It is presumed that a fair share of these new dealers will want to sell his products. And he realizes that until many more of the *best* dealers roll up their sleeves and go out to sell air conditioning, the industry can't possibly realize its terrific potential.

But this practically unselfish and certainly magnanimous advertising theme is almost unprecedented in business paper advertising campaigns. It's business statesmanship of the highest order. That's why we salute it here.

Hats off to gallant, courageous, far-seeing Carl Nevinger! May his tribe increase! And his chosen industry zoom!

For the benefit of the conventioners at the Machine Tool Show in Chicago, Anson Meanor of *American Machinist* printed a Chicago restaurant guide.

Billed as "Mr. Meanor's Misdemeanors for the Stout, or Where to Eat in Chicago," the four pages were first run in the magazine, then handed out in reprint form at the show. When attendance soared to 178,000 conventioners (yes, that's right: 178,000!) the "take" for the recommended restaurants was great.

Editor Meanor identified himself to one of these lucky restaurateurs at lunch and the latter confided that the editor's promotion had brought him \$10,000 in extra food and liquor sales during the first three days of the convention. Furthermore, he asked Meanor to visit his office after lunch. There would be a "package" awaiting the editor, the restaurant man smiled.

"Hm-m-m," mused our fellow-editor. "The pay-off. Well, why not? I didn't figure on it, of course . . . just a service to our industry . . . but look what I did for this fellow. Sure, I'll accept his case of Scotch . . . or new sports jacket . . . maybe it's a set of golf clubs. . . ."

So, with no little pleasant anticipation, the editor drained the last of his coffee—which was now good to the last, impatient drop—and stepped into the office.

There the restaurateur handed the editor a package about the size of 10 telephone directories. "You did such a great job for me," he explained, "that I'm empowering you to pass out 12 gross of my restaurant's king-size book-matches from your booth at the convention!"

Simplify YOUR REFRIGERATION INSTALLATIONS



Shown in the photograph is one example of Honeywell refrigeration control panels. Two T415 temperature controllers and a remote bulb thermometer have been combined in a single compact, quickly installed unit.

If you're concerned over finding new methods to cut costs and step up production, you'll profit by investigating refrigeration control panels—a development of Minneapolis-Honeywell, the 60 year leader in automatic control.

Refrigeration control panels are designed and made by Honeywell to meet your own individual requirements. The panels simply group all controls for any one of your products into one compact, workable unit. The advantages are many. Inventory items are reduced from several to just one. Materials handling is cut the same way. Production goes up as the number of control installations goes down—

to just one. And time and again, among manufacturers already using Honeywell control panels, the net result has been the same—lower costs and increased production with greater operating efficiency.

The range of applications is broad. Temperature controllers, pressure controllers, thermometers, switches, motor starters, signal lights—all these and others can be combined on Honeywell control panels. Write today for information related to your own specific needs. Address Control Panel Division, Minneapolis-Honeywell, Minneapolis 8, Minnesota. In Canada: Toronto 12, Ontario.

MINNEAPOLIS
Honeywell
CONTROL SYSTEMS

The Multiplex Bar Dispenser Is A "LIFETIME FIXTURE"

DISTRIBUTORS WANTED!

If you are in a position to handle sales, installation, and service for Multiplex Fixtures to Bars and Taverns—it is quite possible for you to add \$50,000 or more in sales per year.

NEW MODEL 14 Multiplex
STAINLESS STEEL
UNDER-BAR, SOFT DRINK
DISPENSER

ONE—TWO OR THREE FIXTURE INSTALLATIONS

NOTE, simple, sturdy construction.

- MANUFACTURES, fresh carbonated soft drinks (seltzer, cola, lemon, ginger-ale, etc.) as easily as drawing a glass of beer.
- ELIMINATES BOTTLES—SPEEDS BAR SERVICE
- INCREASES THE PROFITS OF BARS TREMENDOUSLY

WRITE US FOR ILLUSTRATED BULLETIN AND PRICES

MULTIPLEX FAUCET CO. Manufacturers
4325 Duncan Ave. Dept. ARN-14, St. Louis, Mo.
Manufacturers of Soft Drink Dispensers for Over 40 Years.

They'll Do It Every Time . . . By Jimmy Hatlo



Do You Have "One Foot In the Door"?

United's NEW DRY-KOOL BOTTLE COOLER

4 SIZES (REMOTE OR SELF CONTAINED) 50 in., 6', 8', 10' LENGTHS



Model DK8

8 foot
bottle
cooler

STAINLESS STEEL SLIDE AWAY DOORS OPEN LIKE MAGIC

One quick, easy motion lifts and slides these doors out of sight. Saves time and temper, speeds service.

ELIMINATES SLIPPERY WET BOTTLES • SPEEDS SERVICE AVOIDS ACCIDENTS

Whether the volume is 25 or 2500 bottles an hour United Dry-Kools assure speedier service, cleaner, safer handling and more profitable operation. Easy-opening stainless steel roller bearing slide away doors give ready access to bottles and flush type decapper speeds service. Made in 2, 3, 4, or 5 section sizes, each section has efficient blower for rapid balanced cooling and holds over 195 twelve ounce bottles. Coolers fit under standard bar, are finished in high baked brown Dulux.

Some territories still open—write or phone

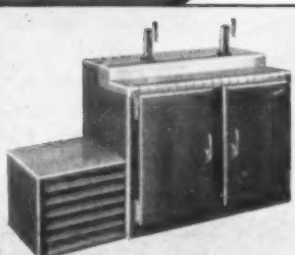
UNITED REFRIGERATOR COMPANY

Sales Division

350 ROBERT STREET
ST. PAUL 1, MINNESOTA



KUBEMASTER
Make and store your own ice cubes—freeze as much as 2½ bushels a day. Space for cooling bottles, trays for garnishes. Fits under standard bar.



KOOLMASTER
Direct draw dispenser for mechanical refrigeration. Chrome fittings, one piece sink with stainless steel splash board. 2 and 3 keg sizes remote or self contained.

AN INTERNATIONAL INSTITUTION • SUBSCRIBERS ALL OVER THE WORLD

Trade Mark
registered
U. S. Patent
Office;
Est. 1928



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VOLUME 54, No. 13, SERIAL No. 1,010, JULY 26, 1948

Needed: Another Horatio Alger

WHEN many of us were boys, we were dazzled by and infatuated with the American Dream, which was presented to us in these terms: "Work harder and get ahead. Exercise your imagination and get rich. So-and-so was a poor orphan boy—now look where he is. You, too, etc."

Magazines and books which we read twenty and thirty years ago were brimfull of "success stories." The old *American Magazine* (under John M. Siddall's editorship) for example, specialized in short biographies of humbly born Americans who "rose from the ranks" through ingenuity, concentration on their jobs, and sheer nerve and will power.

Countless numbers of today's leaders perused these articles in their youth; clipped them, re-read them, and resolved to "make a name" for themselves, too. No doubt the continued reading of these "success stories" contributed mightily to America's achievement and enrichment. And thousands of lads who might otherwise have been content to be proprietors of shoe repair shops in small towns, or barbers, mailmen, street-car conductors, and clerks, forged ahead to become highly-paid salesmen, lawyers, doctors, engineers, advertising men, and industrial tycoons.

Publications like the old *American Magazine*, Sunday-school periodicals like *Our Sunday Visitor*, and juvenile fiction like the Horatio Alger and Frank Merriwell books, gave the generation of men which is now classed as "middle-aged" a kick-in-the-pants—visions and goals and hope—and encouragement to rise above their born-into stations in life.

Inspired by the examples of men who had lifted themselves from obscurity by their own efforts, they resolved to try their worthiest to do likewise. And many of them *did* succeed. Of course, a lot of boys who read this inspirational stuff didn't do so well. But the point is: they tried. And their cumulative efforts promoted the material well-being of their country and their fellow men.

America was built up by men with ambition. But it can hit the skids quickly if our own sons and grandsons aren't spurred *also* by the American Dream of "getting ahead." Ambition and "spizzirintum" must be renewed in each succeeding generation, or the American Spirit will peter out.

During the Roosevelt Era, it became unfashionable to set goals for boys. Teachers and propagandists intoned, in mournful numbers, this dirge: "The frontier no longer exists. To encourage young men will lead to their frustration. It's unkind to flint the spark of ambition in a boy. Children should be unambitious, and take life easy, lest they be disappointed."

And so the "new look" in child-training came into vogue. "Progressive" educators, worried less they frustrate the little tykes, quit teaching the alphabet, the multiplication table, and spelling. Latin went out the window. So did any other study which required hard work. Kids were taught to loaf, and were brought up under the delusion that through "group cooperation"—and the absence of competition—Life Could Be Beautiful. In many schools even football, basketball, and baseball were ruled out, because they are competitive sports. So were grading systems for scholarship. Big idea: Never let anyone feel either inferior or superior.

Apparently sensing the trend of the times, the old *American Magazine* adopted another editorial formula. "Success stories" were omitted, and wishy-washy stuff substituted. About the same time, the Horatio Alger books went out of print. Such titles as "Sink or Swim," "Pluck Not Luck," etc. no longer were available to impressionable small fry. What a pity! America and all the world are losing ground because the "you can get ahead" principle is no longer promoted in print.

The ever-hungry and ragged children of wretched India are brought up to believe that they have no hope of being anything but miserable and tattered and hungry so long as they live. They read no "success stories." Rather, they are taught from infancy that they were born into a "caste," that they'll stay in that "caste" all their lives, and that death should be welcome. Is this what we want for our children and our country?

What this nation needs—if it is to survive as a wonderful oasis of opportunity in a desert of numb desperation—is a new series of Horatio Alger books to inspire oncoming generations. When Napoleon said: "Every French soldier carries a marshal's baton," he was stating the formula which the Alger books hammered home. This formula—*be ambitious; try harder, and you'll get ahead*—is the secret of American power.

The Ceiling Makes The Difference



This model kitchen, in the Duerden-McCloud appliance store, Bremerton, Wash., increased floor traffic 25%. It was constructed with three walls, ceiling, and a mural to represent as nearly as possible a "dream kitchen" as it would be in the home.

Kitchen That Looks Like Home Draws More Prospects Past All Floor Displays

BREMERTON, Wash.—Three walls, a ceiling, and a mural give the "Dream Kitchen" set up recently at Duerden-McCloud, local appliance outlet, an attention-getting value which the conventional type of model kitchen often lacks.

Owners Harold J. Duerden and Don McCloud estimated that floor traffic increased 25% in the first week after the kitchen was installed, and as a direct result of the installation. The increase, moreover, was registered before inauguration of a newspaper promotion campaign.

The kitchen was constructed to resemble as closely as possible the actual installation in the home. Located at the back of the store, it is clearly visible from the street and catches the attention of prospective customers the moment they step inside.

Thus, floor traffic is drawn past other displays, making all of them "hot spots," according to the owners. This, they say, makes the expenditure of the additional \$500 (over that for the conventional kitchen display) for walls, ceiling, and fluorescent lighting well worth while.

In addition to all-metal cabinets and a table and chair set, the kitchen contains these General Elec-

tric appliances: range, automatic dishwasher, 8-cu. ft. refrigerator (to be replaced later by a 10-cu. ft. box), automatic washing machine, and frozen food cabinet. A Bendix washing machine is also included.

Sues Elected President Of Pacific Coast Group

SAN FRANCISCO—The Pacific Coast Electrical Association elected M. G. "Pete" Sues as president at its annual convention held here recently. He is president of Sues, Young & Brown, Inc., Los Angeles distributor.



M. G. Sues

W. G. Wilson, Los Angeles manager of Westinghouse Electric Corp., was elected southern vice president; D. D. Smalley of Pacific Gas & Electric Co., San Francisco, was named northern vice president; and N. R. Sutherland, also of Pacific Gas & Electric Co., was elected treasurer.

Six Regional Managers Appointed by Maytag Co.

NEWTON, Iowa—Appointment of six new regional managers to serve in territories in the eastern half of the United States have been announced by the Maytag Co. here. All six have just completed intensive training courses in the sales, service, and parts departments of the Maytag factory.

Three of the men will work for the recently created Chicago branch of the company headed by J. A. Andersen. Of these, Leon Allen will have charge of 21 counties in eastern Indiana, William R. Dick will cover 13 counties in western Michigan, and Aubrey C. Green will take over 13 counties in Illinois in the vicinity of East St. Louis.

Working out of the Minneapolis branch, headed by R. W. Weed, Paul J. Schmitz, will cover 14 counties in northeastern Wisconsin with his headquarters at Wausau.

Charles M. Redfern, and William A. Oden, both natives of North Carolina, will take over territories in their home state. Redfern will sell in the west central part of the state and Oden in the eastern part. They will work out of the company's Richmond branch headed by W. G. Wilks.

Hamilton Refrigeration Moves

CINCINNATI—Hamilton County Refrigeration Co., formerly Hamilton County Stores, has recently moved to 2179 Gilbert Ave. here. Management and policy of the company will remain the same, according to an announcement.

New Water Heater Installations Set Record

ST. LOUIS—A record number of new installations of electric water heaters were made in the area served by the Union Electric Co. here during May, the utility announced recently.

During that month 617 new installations were made in St. Louis, East St. Louis, and Alton, as compared

Appliance	1947 4th Qtr.	1948 1st Qtr.	1947 March	1948 March	1947 April	1948 April
Ranges	2,322	2,536	477	805	705	557
Water Heaters	1,379	1,013	329	443	437	472
Refrigerators	8,571	8,569	1,622	3,324	2,705	3,514
Food Freezers	976	1,074	40	179	187	222
Automatic Washers	1,802	1,051	631	404	704	404
Conventional Washers	3,566	4,037	1,049	997	1,965	2,497
Clothes Dryers	387	74	0	17	1	37
Ironers	1,024	1,185	584	257	783	443
Vacuum Cleaners	5,458	4,349	1,342	2,004	1,344	1,420
Electric Sinks	122	171	0	82	56	89
Dishwashers	113	167	101	51	95	34
Television Receivers	1,019	1,392	Not Avail.	597	83	513

with 312 in May, 1947. New installations for the first five months of the year number 1,988 as compared with 801 for the same period last year.

The utility cautioned that these figures do not represent all electric water heaters installed, but only those put in where none had been before.

At the same time, the company released these statistics on recent shipments of major electric appliances made by a maximum of 57 distributors to dealers in the utility's area.

Wall WIRE
PRODUCTS COMPANY
PLYMOUTH • MICHIGAN

Makers of
REFRIGERATOR SHELVES • STAMPINGS
FORMED AND WELDED PRODUCTS

There is nothing to match the appearance of Stainless Steel Refrigerator Shelves.

How can you possibly beat Bundyweld* for refrigeration tubing?

Ever get a good look at Bundy Tubing?

Let the Bundy Gremlins escort you along a length of Bundyweld . . . and show you the features that make this amazing tubing better than any other for refrigeration uses. Ready?

BUNDYWELD IS STRONGER
... IT'S DOUBLE-WALLED
FROM A SINGLE STRIP

BRIGHT AND CLEAN,
INSIDE AND OUT

ALWAYS HELD TO
CLOSE DIMENSIONS

LOW IN COST

THINNER WALLS,
FASTER COOLING . . .
YET EQUAL STRENGTH

FABRICATES
EASILY, QUICKLY

Did you catch that phrase, "double-walled from a single strip"? That's the key . . . exclusive with Bundyweld! Because of its special construction, only Bundy Tubing gives you these features just made for use in condenser and evaporator coils, compressor lines, connecting tubes!

How can you beat Bundyweld? Frankly, we don't think you can. So whatever your tubing needs, contact your nearest distributor or representative (listed below) . . . or write: Bundy Tubing Co., Detroit 14, Mich.

BUNDY TUBING

ENGINEERED TO
*REG. U.S. PAT. OFF. YOUR EXPECTATIONS

WHY BUNDYWELD IS BETTER TUBING

1 Bundyweld Tubing, made by a patented process, is entirely different from any other tubing. It starts as a single strip of basic metal, coated with bonding metal.

2 This strip is continuously rolled twice laterally into tubular form. Walls of uniform thickness and concentricity are assured by close-tolerance, cold-rolled strip.

3 Next, a heating process fuses bonding metal to basic metal. Cooled, the double walls have become a strong, ductile tube, free from scale, held to close dimensions.

4 Bundyweld comes in standard sizes, up to 1/2" O.D., in steel (copper or tin coated), Monel or nickel. Special sizes can be furnished to meet your requirements.

BUNDY TUBING DISTRIBUTORS AND REPRESENTATIVES:

Austin-Hastings Co., Inc.
226 Binney St.
Cambridge 42, Mass.

Pearson-Deakins Co.
823-824 Chattanooga Bank Bldg.
Chattanooga 2, Tenn.

Lapham-Hickey Co.
3333 W. 47th Place
Chicago 32, Ill.

Rutan & Co.
404 Architects Bldg.
Philadelphia 3, Pa.

Pacific Metals Co., Ltd.
3100 19th St.
San Francisco 10, Calif.

Eagle Metals Co.
3628 E. Marginal Way
Seattle 4, Wash.

Alloy Metal Sales, Ltd.
881 Bay St.
Toronto 5, Canada

Bundyweld nickel and Monel tubing is sold by International Nickel Company distributors in all principal cities.



Stainless steel inside and out.

Sturdy, all metal frame with useful

combination ice maker and frozen food

compartment. Available for immediate

delivery in 25 and 30 cu. ft. sizes.



WRITE FOR
ILLUSTRATED
CATALOGUE

The **KEY** to AIR CONDITIONING

One of a series from

by James J. LaSalvia

Cooling Load (Cont.)

HEAT GIVEN OFF BY LIGHTS

All lights give off heat entirely in the form of sensible heat.

Incandescent and fluorescent lights should be figured as 100% of rated watts as heat.

The difference between incandescent and fluorescent lighting is that less wattage is required for fluorescent, to give the same lighting effect as the incandescent, but the wattage shall be figured as 100% heat in both cases.

There are 3,415 B.t.u. in one kw. hour or 1,000 watt hours. So each watt will give off 3.4 B.t.u. per hour.

Example: Space has six lights and each light has a 200 watt bulb. How much sensible heat is given off?

6 lights x 200 watts = 1,200 watts.

1,200 watts x 3.4 B.t.u. =

4,080 B.t.u. per hour.

The following points should be considered when figuring light load:

1. If the air conditioned space is to be used for evenings, figure for 100% light load.

2. If awnings are figured for windows, use 100% of light load.

3. If venetian blinds are used on windows, figure for 75% of light load.

HEAT GIVEN OFF BY APPLIANCES

Heat generating appliances may be broken down to three different types:

1. Electrical appliances.
2. Gas appliances.
3. Steam appliances.

ELECTRICAL APPLIANCES

Under electrical appliances may be found such equipment as motors, toasters, ranges, coffee urns, and hotplates.

The wattage is usually stamped on such equipment. If not, inquire of the manufacturer. Motors, however, are indicated in horsepower.

Motors may be located in the air conditioned space or in the cooled air stream. In such cases the sensible heat to be figured will be greater than when a motor is outside the casing in an unconditioned space, driving a fan within the casing.

In order to arrive as nearly as possible at the amount of heat given off

by these appliances, it is necessary to know the operating time of such equipment.

For instance, some may run continuously; others may run at various times of the day for a short or long period. In order to arrive at some definite calculations, the following Tables 9 and 10 can be used.

EXAMPLE

In a space to be air conditioned there are the following appliances:

One electric toaster rated at 600 watts operating intermittently with no shut down.

One gas-burning coffee urn, large 18 in. dia., single drum, operating for 1½ hours at morning, noon, and evening, with 2-hour shut down or longer.

One steam table having a top surface of 10 sq. ft., operating for one hour or longer, with no shut down.

What is the heat gain from this equipment? (Refer to Tables 9 and 10.)

Electric toaster (refer to Table 9): Per cent sensible and latent heat will depend upon use of equipment, dry heat, baking, or boiling.

Heat gain from electric or gas residential ranges or cooking depends on the size of the family, socio-economic status of the individual, the time of day for principal meal, and whether the equipment is manually or automatically controlled. Total heat gain will probably not exceed 40% of name-plate rating.

Name-plate ratings of gas burning equipment can be obtained from a "Directory of Approved Gas Appliances and Listed Accessories," obtainable from American Gas Association

Electric toaster (refer to Table 9):

600 watts x 50% = 300 watts

300 watts x 3.4 = 1,020 B.t.u.

1,020 B.t.u. x 90% = 918 B.t.u. S.H.

1,020 B.t.u. x 10% = 102 B.t.u. L.H.

Gas coffee urn (refer to Tables 9 and 10):

5,000 B.t.u. x 80% = 4,000 B.t.u. S.H.

5,000 B.t.u. x 20% = 1,000 B.t.u. L.H.

Steam table (refer to Table 9):

10 sq. ft. x 300 B.t.u. = 3,000 B.t.u. S.H.

10 sq. ft. x 800 B.t.u. = 8,000 B.t.u. L.H.

Total sensible heat = 7,918 B.t.u./hour

Total latent heat = 12,102 B.t.u./hour

Laboratories, Cleveland, Ohio. Steam requirements of process equipment is listed in a report of the Commercial Relations Committee,

National District Heating Association (Heating, Piping and Air Conditioning, November, 1942, p. 675). (To Be Continued)

Table 9—Heat Gain from Various Sources

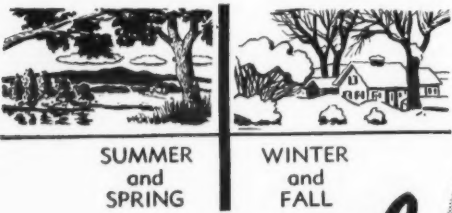
		Per Cent			
		Name	Percentage or		
		Plate	B.t.u. per Hour		
Source	Rating	Sensible	Latent	Total	
(1)	(2)	(3)	(4)	(5)	
Electric Heating Equipment					
1. Electric oven—baking .....	....	80%	20%	100%
2. Baker's oven	70	80%	20%	100%	
3. Coffee urn—per gallon capacity.....	....	1,025	1,025	2,050
4. Glass coffee maker—per section.....	20	90%	10%	100%	
5. Warming receptacle	30	80%	20%	100%	
6. Plate warmer	50	100%	0%	100%	
7. Hot plates	80	....	....	....
8. Steam table—water bath type.....	100	65%	35%	100%	
9. Frying griddles	75	90%	10%	100%	
10. Fry kettle	70	....	....	....
11. Waffle baker	40	75%	25%	100%	
12. Sandwich grill	60	90%	10%	100%	
13. Toaster—intermittent or timed control	50	90%	10%	100%	
14. Toaster—continuous	100	90%	10%	100%	
15. Hair dryer in beauty parlor, 600 watt..	....	2,050	....	2,050
16. Permanent wave machine in beauty parlor—24-25 watt units .....	....	2,050	....	2,050
Gas-Burning Equipment					
17. Gas heated oven—baking					
No vent connection	70	72%	28%	100%	
Gravity vent connection	35	100%	0%	100%	
18. Open top burner—per hole	50	45%	55%	100%	
19. Hot or closed top—per burner					
No vent connection	100	45%	55%	100%	
Gravity vent connection	70	50%	50%	100%	
20. Coffee urn—large, 18-in. dia., single drum.....	....	5,000	5,000	10,000
21. Coffee urn—small, 12-in. dia., single drum .....	....	3,000	3,000	6,000
22. Coffee urn—per gal. of rated capacity	....	500	500	1,000
23. Plate warmer					
No vent connection	60	90%	10%	100%	
Gravity vent connection	10	100%	0%	100%	
24. Steam table—water bath type					
No vent connection	60	55%	45%	100%	
Gravity vent connection	42	50%	50%	100%	
25. Frying griddles					
No vent connection	75	81%	19%	100%	
Gravity vent connection	52	90%	10%	100%	
26. Fry kettle					
No vent connection	70	72%	28%	100%	
Gravity vent connection	49	80%	20%	100%	
27. Egg boiler—per egg compartment....	....	2,500	2,500	5,000
28. Cigar lighter—continuous flame type..	....	2,250	250	2,500
29. Curling iron heater .....	....	2,250	250	2,500
30. Pilot light .....	....	180	20	200
Steam-Heated Equipment					
31. Steam heated surface not polished— per square foot of surface .....	....	330	0	330
32. Steam heated surface polished— per square foot of surface .....	....	130	0	130
33. Insulated surface—per square foot....	....	80	0	80
34. Bare pipes, not polished— per square foot of surface .....	....	400	0	400
35. Bare pipes, polished— per square foot of surface.....	....	220	0	220
36. Insulated pipes—per square foot.....	....	110	0	110
37. Coffee urn—large, 18-in. dia., single drum .....	....	2,000	2,000	4,000
38. Coffee urn—small, 12-in. diam., single drum .....	....	1,200	1,200	2,400
39. Egg boiler—per egg compartment....	....	2,500	2,500	5,000
40. Steam table— per square foot of top surface.....	....	300	800	1,100
Miscellaneous					
41. Heat liberated by food per person, as in a restaurant .....	....	30	30	60
42. Heat liberated from hot water used directly and on towels per hour— barber shops .....	....	100	200	300

From A.S.H.V.E. "Guide."

Table 10—For Intermittent Operation

This table is to be used in conjunction with Table 9 when there is a 2-hour or longer shut-down period between operations.

Length of Operating Time for Appliances	Shut Down Period Between Operations	Percent of the Percentage Shown in Col. 2 of Table 9 or Percent of B.t.u. Shown In Cols. 3 & 4 of Table 9 (Ignore heat gain)	
14 minutes or less	At least 2 hours	15%	
15 to 29 minutes	At least 2 hours	30%	
30 to 60 minutes	At least 2 hours	60%	
1 to 1½ hours	At least 2 hours	80%	
1½ to 2 hours	At least 2 hours	100%	
Over 2 hours	Less than 2 hours	100%	



SUMMER
and
SPRING



WINTER
and
FALL

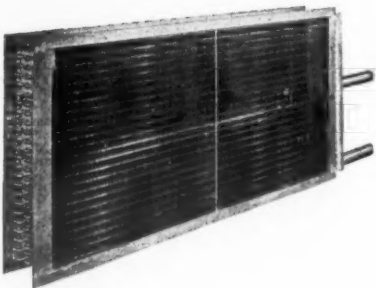
Sell

GOVERNNAIR
ALL YEAR 'ROUND

Your sales don't have to "drop off" at the end of every summer season. Sell Governair All year 'round and keep that sales curve "up" during slack periods.

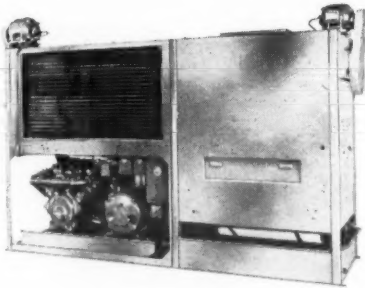
Sell blast coils for converting our packaged unit to year 'round air conditioning. Sell completely packaged air conditioners to those who didn't order early enough this season. Sell unit coolers for efficient refrigeration.

Yes, keep your sales average HIGH — sell Governair All year 'round. Clip out coupon below and mail today.



**BLAST COILS FOR YEAR
'ROUND HEATING & COOLING**

Governair blast coils for efficient heating or cooling take the lead for year 'round business! Smart operators are selling these to convert our completely packaged air conditioners for year 'round comfort. Others use them for cooling or heating in numerous other ways. Made of copper tubing and copper fins spaced according to temperatures involved. All joints are securely welded and a thorough pressure test is made before each unit's delivery. Check into your potential sales of these versatile coils right away! Sell Governair all year 'round.



**COMPLETELY
PACKAGED AIR CONDITIONERS
FOR YEAR 'ROUND COMFORT**

This is the famous Governair completely packaged air conditioner which has made air conditioning history! Expertly designed for efficient operation, easy installation and high quality performance this air conditioning unit is known as the greatest VALUE IN THE FIELD!

It can be quickly utilized for year-round air conditioning to provide clean, warm air by connecting a Governair heating coil to the system. Owners of the unit are your immediate prospects for fall and winter business. Sell them also to those "hot" prospects who didn't order early enough this year. Sell Governair all year 'round!



**UNIT COOLERS FOR
YEAR 'ROUND REFRIGERATION**

The Governair floor type unit cooler needs no introduction! It is compactly designed for operation in cold storage rooms to produce temperatures below or above 33 degrees. The units may be furnished with either vertical or horizontal air delivery as required. Available in a wide range of sizes to provide air delivery from 1,600 to 20,000 CFM.

Particularly desirable for its efficiency and mobility, this unit was highly praised and its performance was proven in world-wide use by the Army and Navy during the war. It always does a capable year-round refrigeration job, so it's a "natural" sales builder for year-round business. Sell Governair all year 'round!

CLIP THIS COUPON AND MAIL TODAY

Dept. H
GOVERNNAIR CORPORATION
513 N. Blackwelder, Oklahoma City, Okla.

We want to keep sales high during slack periods. Without obligation, please send free literature as checked so that we may sell Governair all year-round!

☐ Governair Blast Coils ☐ Governair Completely Packaged Air Conditioners ☐ Governair Unit Coolers

NAME _____ TITLE _____
COMPANY NAME _____
STREET ADDRESS _____
CITY AND STATE _____



GOVERNNAIR CORPORATION
513 N. BLACKWELDER • OKLAHOMA CITY, OKLA.

PIONEERS IN THE MANUFACTURE OF COMPLETELY PACKAGED AIR-CONDITIONERS

Marvair 'Comes Out' In Southern California



The Marvair heat pump made its first appearance in southern California at the National Home Show in Los Angeles. Above is a shot of the booth, which attracted wide interest and accounted for a number of direct sales, according to company officials. Marvair South-West Co. is distributor in southern California.

Electronic Precipitation, Air Conditioning Have Life-Saving Hospital Job

RENO, Nev.—Combined air conditioning and electronic precipitation for a genuine life-saving purpose is being installed in the top-floor operating room of the Veterans' Administration Hospital here.

Prior to the installation of a separate air conditioning and dust precipitating system by Savier's, Westinghouse distributor here, the hospital experienced extremely unsanitary conditions during Reno's long-continued "dry spell"—when the city's aridity often exceeds that of the Sahara Desert.

Unsanitary conditions, caused by particles of dust filtering into the operating room, and leaving a visible film over operating table, instruments, etc., in a matter of a few hours, were so bad that the hospital frequently canceled scheduled operations for the operating room, or performed them elsewhere in the building, where the dust problem could be more effectively met. Nevertheless, because the operating room was designed to take full advantage of sunlight illumination, work went forward to "dustproof it."

The ultimate solution has been the installation of a direct-expansion Westinghouse air conditioning system in the basement of the hospital, with direct, dust-tight ducts into the operating room, and a precipitron air cleaner in the plenum chamber.

Every crack and interstice in the operating room has been effectually sealed off for dust exclusion, and all air in the operating room will be recirculated by the air conditioning system through the precipitron, except between operations, when an un-named amount of fresh air will be admitted.

REMA Seeking First Air Conditioned Plant

CLEVELAND — Which was the first factory in the United States to install air conditioning?

This question is being asked by the Refrigeration Equipment Manufacturers Association in an effort to discover and recognize the first concerns in this country to have adopted air conditioning.

The air conditioning and refrigeration industry is said to be the fastest growing industry in the world and the association is compiling a history of its development and desires to recognize those forward-looking companies who were pioneers in their particular industry.

Factories which installed air conditioning early and who believe that they may have been among the first to do so, should contact the Public Relations Bureau of Rema, 3751 Prospect Ave., Cleveland, or in care of this publication.

The association will want the date and extent of the installation and a brief description of the type of equipment as well as the present air conditioning program if it has been augmented. It is also interested in hearing from those who feel their installation may now be the largest in their industry.

Lone Bidder Gets Contract On Rooms In N. Y. Capitol

ALBANY, N. Y.—E. W. Tompkins Co. of Albany was the lone bidder on proposals for air conditioning three rooms in the State Capitol, Charles H. Sells, state superintendent of public works, has announced.

The company submitted an estimate of \$5,223 for the contract to air condition Rooms 204, 204B, and 205.

★ NUMBER TWENTY-FIVE ★

The Supreme Challenge

WAR ALWAYS creates more problems than it solves. This aphorism holds true even in the air conditioning engineering field, despite the tremendous strides which our industry took during World War II.

We have never known a time when so many engineering challenges confronted us, or when so many engineers connected with other firms have consulted us to get our ideas on mutual problems.

The most interesting category of all such mutual problems facing our industry is that of air conditioning applications dedicated to the treatment of diseases and injuries.

Scattered here and there around the world, a number of public health technicians are studying air conditioning for use in anesthesia, fever amelioration, cancer control, tropical disease treatment, relief of allergies, lung and throat assuagement, and the prevention of post-operative infection.

And in certain hospitals, research-minded physicians and surgeons are attempting to work out new cold-control techniques which are sure to usher in revolutionary advances in the art of relieving human suffering. What's more, these researchers are calling on us for help.

Somewhat akin to these promising research projects are current examinations of the effect which air conditioning has on healthy human beings—such as the shock result of entering and leaving air conditioned space, and the evaluation of the physiological effects of air conditioning—particularly with reference to its inducing, arresting, or preventing of various illnesses.

A corollary of such research is the data now being tabulated on relative labor efficiency in those factories which are necessarily (because of the processes involved) air conditioned. Interpretation of this data will bear fruit later in terms of sales to plants which do not need air conditioning in their industrial processing.

The possibility of disease control, through dust and germ elimination, also presents an intriguing aspect to the air conditioning engineer. Several preliminary studies in this field lead enthusiasts to predict that even the common cold may be held in check eventually through air conditioning. What a boon this would be to offices and factories! Sick-leave costs to industry and business are tremendous.

In the curing of diseases, and in the alleviation of all types of suffering, the air conditioning industry can possibly make its greatest contribution to the human race. New markets for its products would naturally follow. But the profits to be made from the exploitation of these markets are truly insignificant in comparison with the opportunity thus afforded us to make the world a far better place for our sons and daughters, our grandchildren, and their grandchildren.

We face not only an opportunity, but a challenge. If we accept the challenge, it is within the industry's power to be remembered along with the Pasteurs, the Kelloggs, the Mayos, and the Sister Kennys. It is a challenge which no man, no firm in this industry, can ignore and keep peace with his conscience.

This is one of a series of 26 advertisements dedicated to the progress of the entire air conditioning industry by

NEVINGER MFG. CO., INC.

GREENVILLE, ILLINOIS

see your "DETROIT"

WHOLESALE

for
Expansion Valves
Solenoid Valves
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"DETROIT"

DETROIT LUBRICATOR COMPANY General Offices: 5900 TRUMBULL AVENUE
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Canadian Representatives: RAILWAY AND ENGINEERING SPECIALTIES LIMITED, MONTREAL, TORONTO, WINNIPEG

"Detroit" Heating and Refrigeration Controls • Engine Safety Controls • Float Valves and Oil Burner Accessories
"Detroit" Expansion Valves and Refrigeration Accessories • Stationary and Locomotive Lubricators

EXPORT DEPARTMENT—Box 218, Ridgefield, New Jersey

CURTIS REFRIGERATION
AIR CONDITIONING
COMMERCIAL

For All Your Refrigeration and Air Conditioning Requirements

Curtis Refrigerating Machine Division
of Curtis Manufacturing Company R-528
1912 Kienlen Ave. St. Louis 20, Mo.
Established 1854

Is the System Wet?
Don't guess—KNOW!

DFN MOISTURE INDICATOR
tells instantly

For Freon and Methyl Chloride.
Accurate . . . fast . . . inexpensive

See your jobber or write
McIntire Connector Co.
Newark 5, N. J.

MARSH

Pressure Gauges Dial Thermometers

★The gauge with the Recalibrator

Ask for this New Refrigeration Booklet

JAS. P. MARSH CORP.
Dept. O, Skokie, Ill.

New Truck Cooler Operates Directly Off Ignition System; Uses Standard Equipment

DETROIT—Refrigerated trucks of all types—from the small panel job for local hauling of meats, ice cream, flowers, or frozen foods to the largest highway semi-trailer for inter-city transport—can derive benefits and savings from a new truck refrigeration system being introduced by Coldmobile Co., it is claimed.

Known as the "Coldmobile System," its chief feature is that it is powered directly off the truck's 6-volt electrical system and uses standard refrigeration equipment, with the exception of the 6-volt motor to drive the condensing unit.

This is believed to be a revolutionary development in the field of truck refrigeration, according to Coldmobile officials, who say patents have been applied for.

The additional electrical power necessary to drive the condensing unit motor is supplied by a special 6-volt generator, which is also connected to the truck electrical system.

This generator replaces and mounts in the same position as the standard "low output" generator supplied as standard equipment by truck manufacturer. Due to its design, the special generator provides a constant source of power for driving the refrigeration unit as well as the vehicle's electrical system over the broad range of motor speeds from idling to top driving speed.

The Coldmobile System is available in sizes from ¼ up to and

including 2-hp. for both low and high-temperature applications in all sizes of trucks and semi-trailers.

On sizes above 1-hp., the special generator is operated through a power take-off from the truck or tractor transmission instead of off the fan belt. On sizes above ½ hp. a combination 6 and 12-volt system is employed.

To place the unit in operation it is merely necessary to start the truck engine and flip a toggle switch on the dashboard. A conventional thermostatic control is employed to control the operation of the refrigerating unit.

On high-temperature applications (above 32°) defrosting is automatic after each "on" cycle.

Accessory equipment to be made available includes a kit which permits plugging in the refrigeration unit to standard 110-volt a.c. current for standby or overnight refrigeration requirements. This would make it unnecessary to unload the truck at the end of the day's run.

A typical installation in a small panel truck mounts the condensing unit conveniently on the floor of the cab beside the driver. Where a custom-built insulated body on a cab and chassis is used, the condensing unit may be suspended beneath the body on one side of the truck. The same method could be used on semi-trailers, or the unit could be mounted in the nose of the trailer.

Refrigerant lines between the condensing unit and the unit cooler are flexible and are fitted with self-sealing couplings. These make possible quick substitution of a replacement condensing unit for one in need of service with no loss of refrigerant, and/or admittance of air to the system.

Conventional refrigeration equipment is used throughout, the only major change being the use of 6-volt motors to drive the condensing unit and the unit cooler fan, plus some reinforcement to withstand road shock.

The Coldmobile System was developed by Henry O. Kirkpatrick, who recently resigned as chief engineer of Advance Mfg. Co., Detroit, producer of truck refrigeration systems.

Distribution will be handled through a nationwide dealer organization, Kirkpatrick said.

First 'All Automatic' Locker Plant In Georgia Plans August Opening

MACON, Ga.—What is claimed to be the first entirely automatic freezer locker plant in Georgia is being erected here at an estimated cost of approximately \$80,000, and formal opening is expected about Aug. 10.

The new plant, which will be operated by Colonel Hal Justice, will feature automatic lockers, which are dial-controlled from a central point. At the push of a button, the locker, mounted on a revolving chain, comes to the door, so that the customer need never enter the refrigerated area. Plans at present call for a total of 560 lockers available for rental.

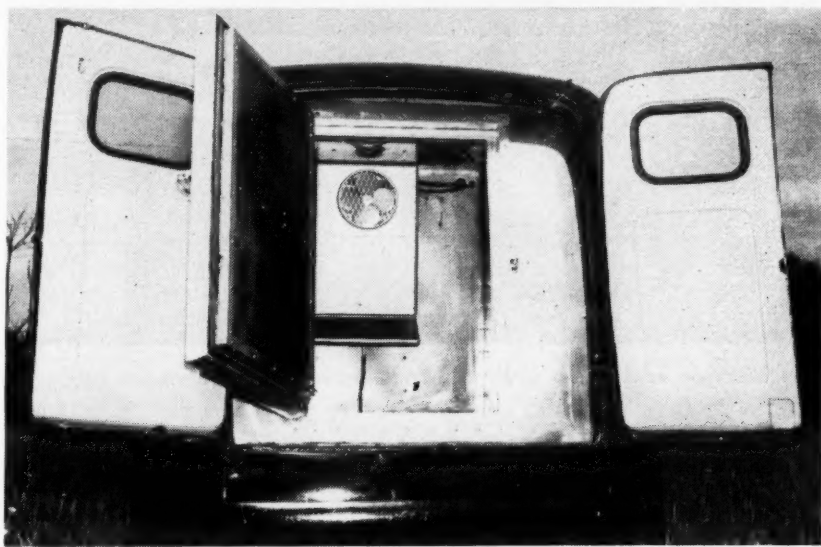
All of the building and refrigeration installation is being carried out by Southern Insulation & Supply Co. of Atlanta. More than three fourths of the lockers have been rented in advance, according to Colonel Justice.

Lipman
AUTOMATIC REFRIGERATION

For year-in and year-out DEPENDABILITY, LIPMAN refrigeration is second to none. Low cost of operation and maintenance assures repeat sales which mean greater profits. Units available in sizes from ¼ thru 40 H.P.

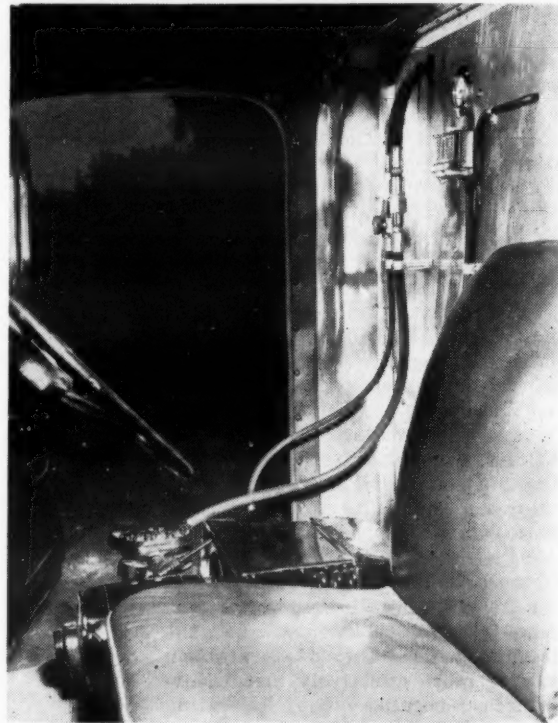
GENERAL REFRIGERATION
DIVISION
YATES AMERICAN MACHINE CO., Beloit, Wisconsin

Coldmobile Design Permits Compact Installation



Typical installation of a Coldmobile system of truck refrigeration is illustrated by this panel truck, which shows a standard panel cooler mounted on the forward wall and connected to the condensing unit by means of flexible refrigerant lines.

Smaller sizes of the Coldmobile system condensing units are small enough to fit beside the driver's seat of a panel truck. They are driven by a 6-volt motor powered by a special generator which replaces the standard generator on the truck motor. "Quick-connectors" in the lines permit easy installation or replacement of the unit.



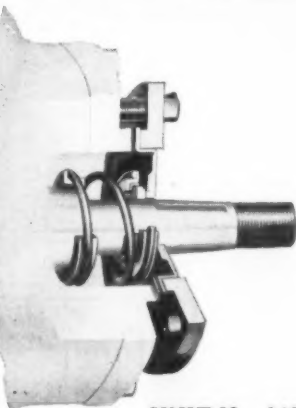
In the center above is the special generator used by Coldmobile to supply 6-volt current which operates the truck ignition system and powers the condensing unit motor. Current delivered to the motor is automatically held constant whether the truck motor is idling or turning over at full speed, it is claimed.

"Sealing with Certainty" with ROTARY SEAL REPLACEMENT UNITS

FOR COMMERCIAL AND SEMI-COMMERCIAL COMPRESSORS

BAKER
BRUNNER
CARRIER
COPELAND
CURTIS
FRIGIDAIRE
YORK and other commercial compressors

GENERAL ELECTRIC
KELVINATOR
MILLS
PAR
UNIVERSAL COOLER
WESTINGHOUSE



UNIT No. 14222

Available for over 848 models as shown on our stock list and carried by all leading jobbers.



2020 NORTH LARRABEE ST. • CHICAGO, 14, ILLINOIS, U.S.A.
CANADIAN AGENT: 2025 ADDINGTON AVENUE • MONTREAL, 28, QUEBEC, CANADA

RADIAL UNIT COOLERS
by **KRAMER**

The original Circular Unit. A distinctive Kramer development that has no equal.

Write for Catalog R-125

KRAMER TRENTON CO. Trenton 5, N. J.



*All Right...
where does
the Moisture
go?*

THAWZONE DATA

"It sure worked on that job," says Mr. Service Engineer. "But where does the moisture go when THAWZONE acts on it?"

"We'll try to explain," we say. "But please bear with us if our explanation sounds complicated."

Water has the chemical formula H₂O. Chemically, however, it generally behaves as if it were made up of two parts: an H⁺ (positive hydrogen ion) and an OH⁻ (negative hydroxyl ion). There are various compounds that interact with water to split it up this way. Most of them are unsuited to a refrigeration system.

THAWZONE, however, is a solution of compounds which are suitable. All they do is to "grab" on to the H⁺ with one part and the OH⁻ with another. The resulting new compounds are complex, but oil-soluble and inert. As a matter of fact, to separate these materials and identify them is almost impossible. This is another indication of their inertness and similarity to the oil normally present in refrigerating systems.

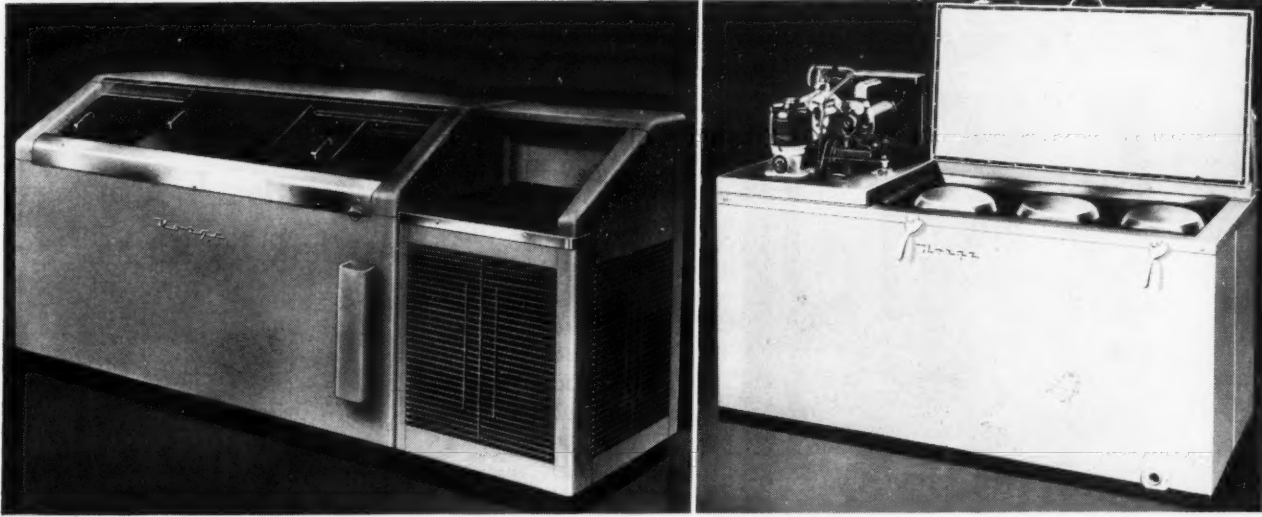
And . . . THAWZONE is economical. Figured on pint quantities, it costs only 8¢ to treat a pound of refrigerant. Use it in new, re-conditioned or old systems.

THAWZONE
PATENTED
The PIONEER FLUID DEHYDRANT

HIGHSIDE CHEMICALS CO.
195 VERONA AVE., NEWARK 4, N. J.



New Norge Entrants In Milk and Bottled Beverage Cooling Fields



Norge has recently re-introduced beverage coolers and milk coolers to its line. At left is one of the new Norge beverage coolers, with service counter section. At right is a 3-can milk cooler model.

Florida Fishermen Find In Flake-Ice Machine Answer to Handling Problem

MIAMI, Fla.—A novel refrigeration installation which has helped to solve spoilage and expense problems in the packing and shipping of fresh Florida Gulf fish to all parts of the country, is the use of two York flake-ice machines in the South River Drive plant of the Miami Fishermen's Co-operative Association here.

Before the two York machines were installed the Fishermen's Co-operative had to depend upon outside sources for supplies of ice. When unexpectedly large catches of fish were brought in by boats belonging to the association, there was frequently insufficient ice available to go around. On the other hand, if over-large quantities of ice were ordered in the expectation of big catches, the chances were that a lot of it would go to waste. Also, cubed ice and shaved ice had distinct disadvantages in packaging.

That was the situation when the manager of the Fishermen's Co-operative went to Hill-York, south Florida commercial refrigeration dealer, to solve the problem. After studying the peculiarities of fish packing and shipping, the Hill-York organization determined that ribbon-ice machines, of the type usually utilized in cafeterias and restaurants filled the bill from the greatest number of points.

The two York units, enclosed in special stainless steel housings, are set up in the packing shed of the Fishermen's Co-operative, and provided with covered chutes, through which the flaked ice accumulates in baskets below.

In order to turn out large volumes of ice at a rapid rate in Miami's humid, warm atmosphere, booster refrigeration was applied in the form of a 3-hp., pre-cooler unit, which reduces the temperature of the city water used for making the ribbon ice from 80° to 40° F.

City water flows into the pre-cool-

ing tank, and is automatically discharged into the two ice-making machines when the temperature drops to 40°. Two 10-hp. York condensing units, both water-cooled types supply the two flake-ice machines.

Radio communication from the fishing fleet as it nears the home port after a day's operation rules upon the operation of the flake-ice machines. If catches are large, both machines are operated at full capacity, to provide plenty of ribbon ice. If, on the other hand, catches are light, only one machine is operated.

In all cases, the two machines at full capacity have been ample for packing cold-retaining shipping crates for distribution of the succulent red snapper, pompano, sole, gruper, and other fish delicacies over the nation.

In addition to the novel use of the two flake-ice machines in this way, Hill-York has also installed a 5-hp. compressor for a sharp-freeze room in which large inventories of fish are always maintained, and a 3-hp. compressor for the holding room. Both of these units are connected with a split-coil economizer unit.

Because of the high productive capacity of the flake-ice machines, and economical condenser use, the individually-operated refrigeration apparatus will pay for itself over a short period of time, according to Miami Fishermen's Co-operative.

Dubov Sales To Handle Ace Cabinet Lines

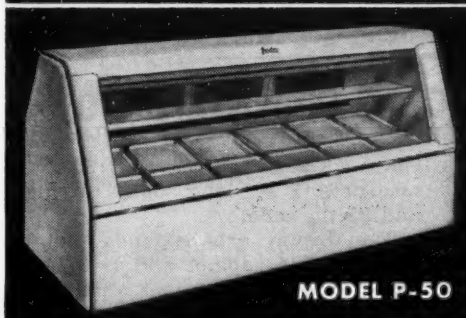
NEW YORK CITY—The Dubov Sales Co. here has been named by the Ace Cabinet Corp., New Bedford, Mass., as representative of its products to the hotel and restaurant supply trade located in the New York area.

Suggests Universal Code Covering Locker Plant Sanitation Practices

PORTLAND, Me.—Universal adoption of state sanitation laws for public freezer lockers was urged by Zeon Gassman, Illinois superintendent of foods and dairies, in an address before the fifty-second annual conference of the Association of Food and Drug Officials here June 15-18.

Gassman declared that state laws enacted now, while the industry is still in its infancy, will save possible later remodeling. Twenty-eight states have already enacted laws for locker plants, it was stated.

DOUBLE-DUTY DISPLAY CASE



IMMEDIATE DELIVERY

Available in 6 ft. and 8 ft. sizes. Porcelain exterior. Stainless steel interior. Mezzanine shelf. One piece, hard rubber, service doors with triple, non-fogging glass. Free-flow air circulating refrigerating system. JORDON "Moist-Cold" Coils. Brilliant, cool, fluorescent illumination. Heavy-duty construction and insulation. Other styles and sizes available at once.

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AMERICA'S MODERN COMPLETE LINE
WRITE FOR
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JORDON REFRIGERATOR CO.
58th ST. and GRAYS AVE.
PHILADELPHIA 43, PA.
CABLE: "JORDONREF" • BELGRADE 6-4510

WORLD-WIDE SERVICE!

Refrigeration • Air Conditioning • Heating Supplies Shipped Anywhere

Everything and anything in parts and supplies shipped all over the globe. Scarce items back, new lines added...most complete stock available anywhere in our enlarged modern building. Big or little, your order gets speedy personalized-attention. Thousands of satisfied customers use our dependable service to save working-hour time, energy. Write for catalog...on your letterhead...today!



Export Sales Division
SCHEEL INTERNATIONAL, INC.
4237 N. Lincoln Ave., Chicago, Ill., U.S.A.

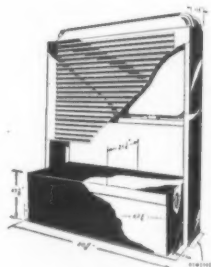
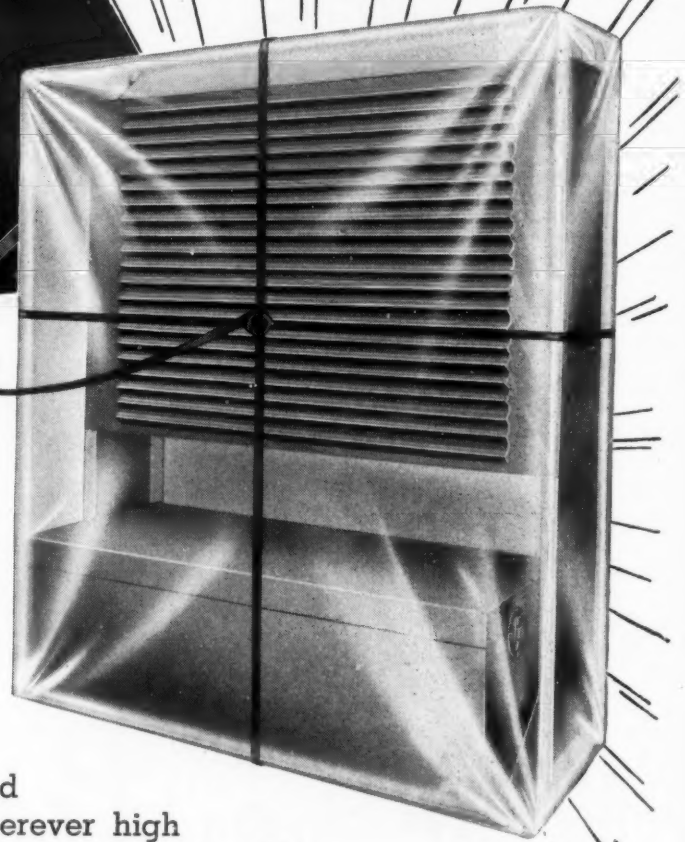
THE SUPPLY HOUSE THAT SERVES THE WORLD • Wholesale Only

SERVICE SP PARTS CO.
2511-2611 LAKE STREET MELROSE PARK, ILLINOIS

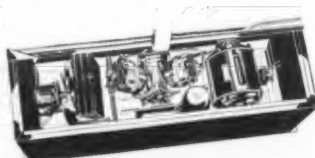
Pakaged REFRIGERATION

THE NEW KOLD-HOLD Package TRUCK UNIT for HIGH TEMPERATURE REFRIGERATION OF PERISHABLES...

The New Kold-Hold Package Refrigeration Unit means lower costs... added dividends to you. Its simplicity of installation and operation is the highlight of its success wherever high temperature perishables are transported by truck. Check the following features of the New KOLD-HOLD PACKAGE REFRIGERATION UNIT.



Self-contained, adjustable to almost any truck. The Unit can be lowered to 46 3/4" for installing through truck door. When installed, height can be adjusted for 57" minimum to 78" maximum heights.



The electrically driven compressor builds up a charge of flint ice in the "Hold-Over" Plates, which provides ample refrigeration over a day's run.

1. Operates efficiently, economically in any properly insulated truck, regardless of age.
2. Easily installed—simply cut intake and discharge holes, push into place, plug into any 110AC-60 Cycle Circuit*.
3. Maintains inside truck temperatures of 45° F. to 50° F. over a full day's run.
4. Provides ample refrigeration even in extreme weather conditions.
5. Recharging plates at any electrical outlet protects loads on long runs.
6. The 1 HP Compressor operates for a few cents a day.
7. Dry and odorless—no bother. Dependability at lower cost.
8. Kold-Hold "Hold Over" Refrigeration plates such as used in this unit have given satisfactory service for over 15 years.

*A 200V-60 Cycle Single Phase motor can be supplied on request.

The Kold-Hold Catalog contains information on the entire line of Kold-Hold Refrigeration Products. Write for your free copy today!



KOLD-HOLD

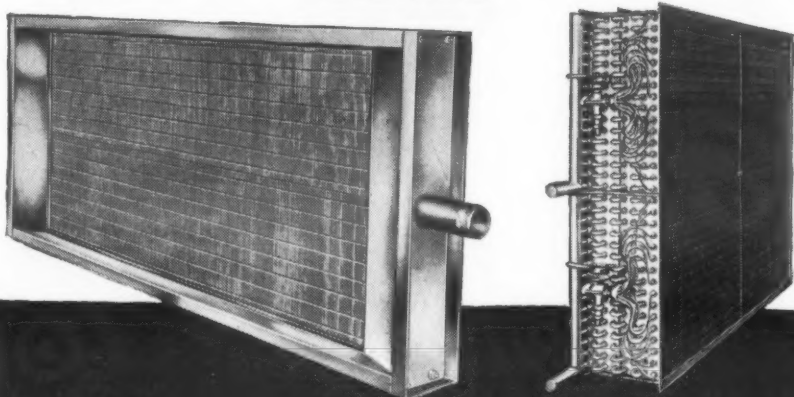
Jobbers in Principal Cities

PROCESSING TRANSPORTATION
protects every step of the way

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HEATING and COOLING COILS



MANY JOBS REQUIRE BOTH

New construction, remodeling and modernization often require both heating and air conditioning coils. RIGIDBILT engineers specialize in developing balanced units designed to produce exactly the right factors for each application.

Your inquiries will receive immediate attention.

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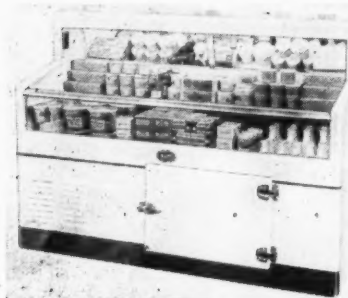
FORMERLY: MANUFACTURERS FIN COIL CO.

2850 FULTON ST., CHICAGO 12, ILL.

RIGIDBILT
IS
BETTER BUILT

What's New

Mezzanine Shelf Boosts Case's Display Area 50%



WAUKESHA, Wis.—A new self-service, double-duty refrigerated display case has been added to the Federal line by the Federal Refrigerator Mfg. Co. here.

The new case has 20½ sq. ft. of display area and 14 cu. ft. of storage

space. Called the model 3007, it measures 7 ft. long, 56½ in. high, and 35 in. wide.

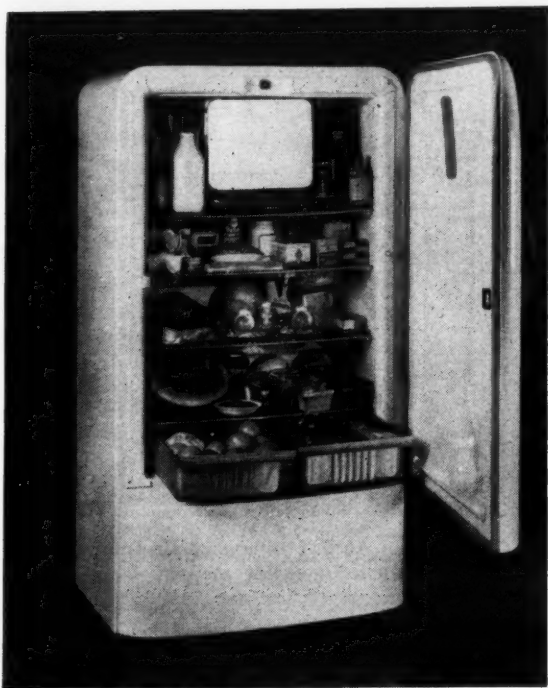
The display area extends the full width of the cabinet and is 26½ in. deep. It features a mezzanine shelf that is 12 in. deep and which increases the display area by about 50%.

Slimline lights and mirror in the back panel attract customers to this self-serve refrigerated cabinet's eye-level display.

Below the display area are the ½-hp. self-contained condensing unit as well as the storage area which is accessible through a front-opening door.

Two remote type double-duty cases and two remote type top display cabinets make up the complete Federal line.

Coolerator 9.1-Cu. Ft. Model Sells for \$259.95



The 9.1-cu. ft. refrigerator at left is a new Coolerator product which was shown at the recent Furniture Mart in the low-price field. With its center-mounted evaporator this model affords space for two ice cube trays plus 22 lbs. of frozen foods. Installed retail price is \$259.95.

facturer points out, are an 8-in. long scale with 20 f.p.m. divisions, and a lock to retain the reading until released.

Dimensions of the Airite meter are 3½ x 3½ x 1½ in. List price, including the detachable handle and leatherette carrying case is given as \$22.00.

Water Heater Also Serves As Desk for Kitchen Area



EXCLUSIVE DISTRIBUTORS WANTED

for
**America's Newest
Most Beautiful
Most Practical**

BAR



Patents Pending

The A. J. STEPHENS All-in-One BAR with REFRIGERATED Walk-In BACK BAR

"New equipment that revolutionizes bar service!" Saves time, work, expense. Draws patronage . . . boosts profits.

All servicing of the bar is done inside the refrigerated back bar. Fourteen half-barrels of beer can be stored and kept cool in the refrigerated back bar, ready to be rolled into position for immediate tapping. Refrigerated back bar also provides cooling storage space for 100 cases of bottled beverages and supplies such as foods, lemons, limes, etc. Pre-cooled bottle beer is transferred inside the refrigerated back bar from the cooler compartment directly to dispensing compartments and is ready for instant serving.

Other outstanding features include:

- Visible reach-in bottle beverage compartments.
- Direct draw beer dispenser strategically placed.
- Back bar liquor display with glass shelves in an attractive ensemble.
- Greatly increased seating capacity at front bar.
- One compressor refrigerates entire unit.

Big Profits for Air Conditioning Distributors

In clubs, hotels, taverns, luxury liners, and all such places constituting a fertile, modern air conditioning field, the bar is usually the first item considered in plans for new construction or remodeling. The new Stephens Bar gives you an effective entree in this field, in addition to a substantial profit margin on the equipment.

We provide the bar with or without refrigeration equipment. As air conditioning distributor, you can sell the bar alone or with refrigeration equipment.

National Advertising Campaign Now in Process

Special papers, magazines and direct mail will completely cover the buying field composed of taverns, fraternal organizations, bars, hotels, clubs . . . so that every potential buyer of this new equipment will know about it. And inquiries will be referred to distributors for closing.

Our company has, for years, supplied fixtures and bar equipment in every state in the Union. We provide a complete planning and engineering service.

Immediate Action Suggested

If you are interested in making money by adding the A. J. Stephens All-in-One Combination Bar to your line . . . write TODAY . . . while the opportunity is still open. Tell us something about your background and the territory that you can competently serve.

Lock Retains Air Meter Reading Until Released



PITTSBURGH—An "Airite" grille velocity meter for indicating velocity of air movement in an open space has been introduced by the Bacharach Industrial Instrument Co. here.

Air movement at the face of a supply or return air register is indicated directly in feet per minute on the calibrated scale, according to the company. The Airite is self-contained and equipped with a detachable handle to facilitate use on baseboard or low sidewall registers. It will measure velocities ranging from 0 to 1,200 f.p.m.

Features of the meter, the manu-

PHILADELPHIA—A unique "kitchen desk model" electric water heater, complete with desk lamp, note pad paper, pencils, minute minder clock, condiment set, and a convenient 25 x 25-in. desk top for the busy homemaker to dash off notes for shopping, meal planning, appointments, and reminders, has been announced here by Pat Riley, general sales manager of the Pennsylvania Range Boiler Co.

The new Pennsylvania kitchen desk model purports to convert the water heater into a convenient kitchen-secretary, strategically located at the center of the homemakers' area of primary activity.

Measuring 25 x 25 x 36 in., finished in white enamel, with a built-in linoleum desk top, it is available in both 30 and 50-gallon models.

Other features include electric arc-welded copper bearing steel tanks, galvanized and hydro-statically pressure-tested to 353 pounds; Fiberglas insulation; supersensitive adjustable thermostats; high-gloss electrostatically baked enamel finish; Pennsylvania Range's own special cold water diffusion baffle, and the Magnedur process for tank corrosion protection—with a 10-year guarantee.

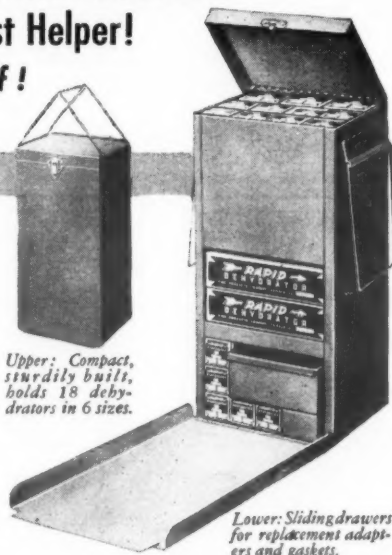
RAPID DEHYDRATOR KIT

Exclusive with FINE PRODUCTS

Serviceman's Handiest Helper!
Pays for Itself!



This convenient kit of Rapid Dehydrators pays for itself. Saves serviceman's time and energy. He keeps kit, filled with most commonly used sizes of Rapid Dehydrators, right in truck . . . eliminates needless extra trips to supply house. Assures impressively clean packages at place of installation. See this utility item at your wholesalers today!



Upper: Compact, sturdy built, holds 18 dehydrators in 6 sizes.

Lower: Sliding drawers for replacement adaptors and gaskets.

RAPID Refillable DEHYDRATORS

Exclusive "Balanced Dimensions" give proper ratio between length and diameter, and assure maximum dehydration with minimum pressure drop. Removable, finger-type screens make cleaning easy, prevent damage. Extra heavy, one-piece, non-collapsible shell. Triple sealed. A Fine product!



BUY FROM YOUR WHOLESALE

Eight practical sizes: 5 to 200 cu. in.

Telephone
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A. J. STEPHENS & CO.

DESIGNERS AND MANUFACTURERS of Complete Equipment for Night Clubs, Taverns, Restaurants

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DESIGN-ENGINEERED FOR RUGGED SERVICE
Fine PRODUCTS COMPANY
185 NORTH WABASH AVENUE • DEPT. A • CHICAGO 1, ILLINOIS

What's New (Con't)

82% Germ-Free Air Circulated by Health Trola



CHICAGO—A window ventilator that filters air for both dust and odors and circulates it in any desired direction around the room has been introduced here by the Health Trola Division of Excel Heating & Air Conditioning Co.

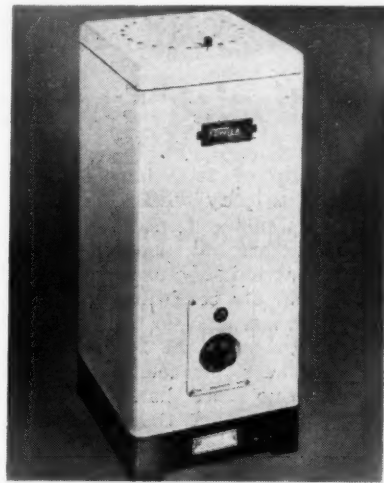
Called the Health Trola, the unit is made of Bonderized metal, is easily portable, and has movable side extensions that enable it to fit almost any home or office window. It operates from any standard a.c. socket, according to the manufacturer.

The Health Trola is equipped with two filters, one an odor absorber and the other designed to screen out pollen, dust, smoke, and bacteria. The manufacturer claims that laboratory tests prove this double filtration eliminates 82% of the germ content of the air passing through it.

A built-in fan with 10-in. pressure type blade circulates the filtered air. A deflector that can be turned by hand, sends the air in any desired direction.

Another feature, the manufacturer says, permits outside air to enter and used air to leave the room when windows and doors are closed.

The Health Trola retails at \$138.



Fowler 'Jiffy Twin' Can Heat Both Water and Air

PORTLAND, Ore.—A five-gallon electric water heater, which also supplies warm air heat, is a Fowler Mfg. Co.'s development for people living in limited quarters.

Called the Jiffy Twin, the dual purpose heater stands only 28 in. tall and a foot square and heat is emitted through an adjustable register in the top. It is said to use about the same wattage as an electric hand iron while supplying five gallons of hot water and a roomful of heat.

Like other Fowler electric water heaters its tank is lined with porcelain, has adjustable automatic water temperature control, special three-way insulation, black heat elements which heat both the water and air. The Jiffy Twin is the twin of another five-gallon Fowler heater, the Jiffy Junior, which does not have the air heating device.

"The Jiffy Twin was originated with particular purposes in mind," said Sales Manager Fred D. Fowler. It is designed to help people living in cabins, trailers, temporary construction camps, workers camps, or auto courts.

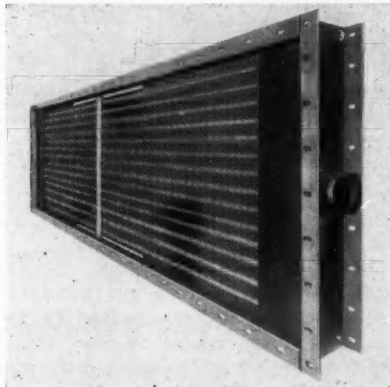
"It is adapted for small commercial enterprises such as barber shops, service stations, rural schools, small restaurants, doctor's offices, and others. It is also useful for anyone using a small amount of hot water or someone desiring an auxiliary heat source."

Booklet Supplies Data on McQuay Cooling Coil Line

MINNEAPOLIS—Features of the non-ferrous, extended surface cooling coils for air conditioning recently redesigned by McQuay, Inc., are described in two new pieces of company literature—Cooling Coil Catalog No. 400 and Cooling Coil Data Bulletin.

Also included in the booklets is detailed data on coil ratings, dimensions, connections, and other information pertinent to selection. On one page of the catalog are pictures of various McQuay production facilities and on another is a psychrometric chart.

One of the features emphasized in the literature is the McQuay distribu-



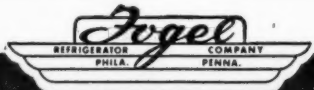
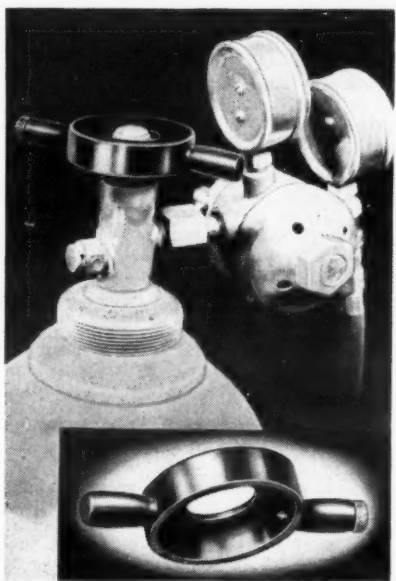
Nutmeg Gas Cylinder Opener Will Reduce Leakage

BRIDGEPORT, Conn.—The "E-Z-Opener," a device to facilitate the opening of compressed gas cylinders, is being made by Nutmeg Industries here.

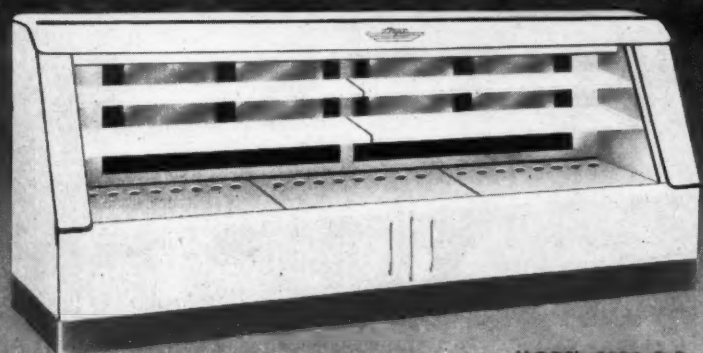
Advantages of the device are claimed to be a great saving of air or gas because the cylinder valve can be closed tighter when not in use, and elimination of frayed "tempers" when trying to open a tightly closed valve.

The E-Z-Opener is a one-piece casting, readily fitted over the standard cylinder valve handle and securely tightened in place by a knurled set screw. With this opener in place the main valve of the tank is easily turned without recourse to a wrench, and it is possible to close the valve much tighter with consequent elimination of gas leakage.

Address of Nutmeg Industries is 45 Deacon St., Bridgeport 7, Conn.



The FOGEL Double Duty "Delicatessen-Dairy" Display Case (WITH TRIPLE SHELF DISPLAY)



MODEL 5003 D.D.

*One of the largest display sections ever built. (Featuring as much as 1/2 MORE DISPLAY Area)

THRILL OF A LIFETIME...

On the golf course it's a hole-in-one . . . in "Delicatessen-Dairy" Display Cases it's the FOGEL Model 5003 D.D. that brings the thrill that comes only with perfection. This NEW case not only displays* a maximum amount of merchandise on three full-view porcelain shelves, but also has a spacious storage compartment.

Food merchants will profit daily by the many PLUS advantages of this beautiful gleaming white, all porcelain case. Advantages such as:

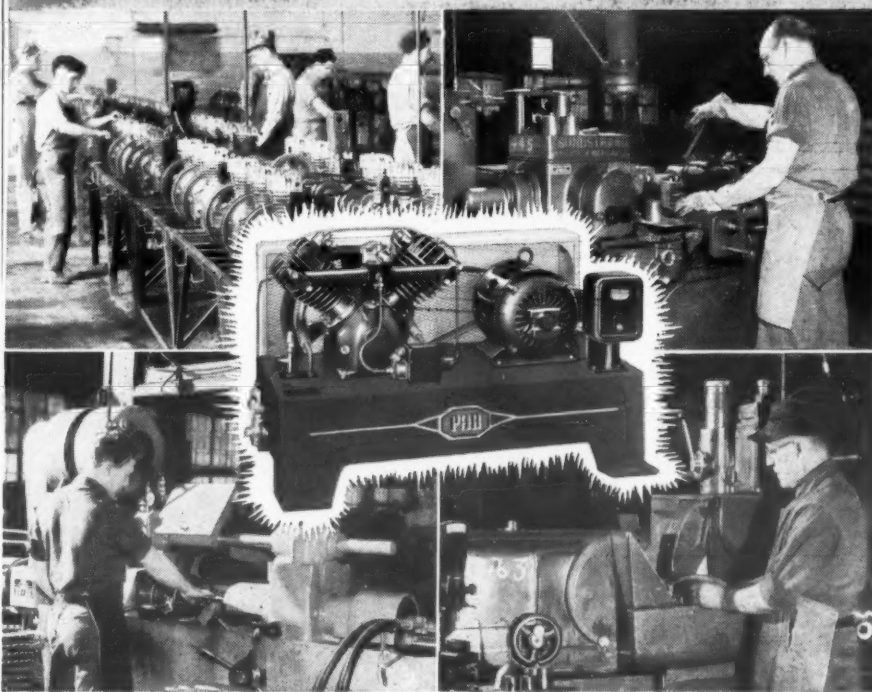
- All porcelain display shelves • Extra wide, hard rubber, sliding doors • Non-glare fluorescent lighting • and they're PRICED TO SELL!

Improve YOUR sales . . . Be a consistent winner . . . Sell the NEW profit-building FOGEL "Delicatessen-Dairy" Display Case. Another example of high quality equipment from one of the most complete commercial refrigeration lines in the industry. Write TODAY for complete information.

(Available for Immediate Delivery)

FOGEL REFRIGERATOR COMPANY
5400 EADOM STREET • PHILADELPHIA 37, PA.
Quality manufacturers, for almost one-half century, of Display Cases, Reach-Ins, Walk-Ins, and Freezers.

LYNCH Precision Manufacture Builds Dependable PAR Units



Skilled Workmen... Precision Machines...

the first requisites in the manufacture of quiet, efficient condensing units. Illustrated are a few of the workmen and special purpose machine tools fulfilling these requirements in the production of Par Condensing Units.

Par Units are engineered and manufactured especially for the commercial refrigeration field . . . in a wide range of models and sizes from 1/6 h.p. close-coupled units up to 5 h.p. heavy duty commercial units. With Par there's a proper-size, proper-type unit to permit "tailored-installations"—giving balanced performance for top economy and efficiency. Ask your Par wholesaler for details or write direct for Par Catalog R-99.

Par—Condensing Unit Line sold exclusively through Franchised Refrigeration Equipment Wholesalers.

By Comparison—You'll Buy PAR

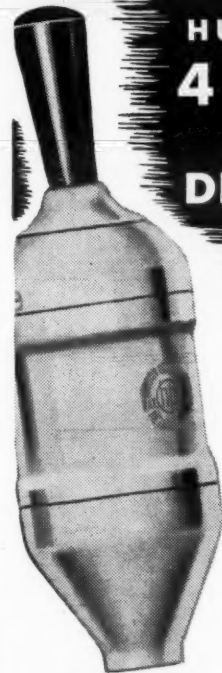


LYNCH CORPORATION
Par Compressor Division TOLEDO 1, OHIO U.S.A.

SHOW

THESE PROFIT MAKERS TO YOUR FOUNTAIN AND BAR TRADE

HUDSON'S 4 WAY DRINK DISPENSER



The Hudson 4-Way Drink Dispenser is the most modern equipment available. Serves hi and lo pressure soda, gingerale and Coca Cola, uniform, tangy, perfectly mixed, correctly carbonated, all from this single faucet. Automatic control proportions each drink. Hudson 3-Way Dispenser, (for Bars) serves plain soda, gingerale and Coca Cola or other favorite chasers. Saves space, saves time, saves money. No guessing, no waste—MORE PROFIT ON EVERY DRINK.



HUDSON Constant Pressure

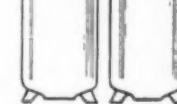
CARBONATOR

The Hudson Constant Pressure Carbonator is unlike any carbonator ever offered. Fully automatic, yet requires no motor, pump, gears, belts or pulleys. Small, light, compact. Can be easily installed in any cooling system. Delivers 25 gallons of pure, sparkling, perfectly carbonated, correctly cooled soda per hour under 125 lbs. pressure at the draft arm. Thoroughly dependable, no let-downs at rush hours. More than 20,000 in daily use, speeding service, cutting costs, boosting fountain profits.

HUDSON SYRUPS

Hudson also supplies the finest quality syrups obtainable including Coca Cola. Other flavors are Pale Dry and Sweet Gingerale, Orange, Lithiated Lemon, Grape, Cherry, Root Beer. Serviced regularly by the Hudson Dealer.

Show these fast Hudson money makers to your trade, show bigger profits for yourself. Send for complete details today.



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INCORPORATED
4400 ST. AUBIN AVE.
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for SULFUR DIOXIDE and METHYL CHLORIDE

See Your
ANSUL WHOLESALE



These Ansul Refrigerants have a long record for DRYNESS, PURITY and DEPENDABILITY. You will like Ansul's friendly service.

ANSUL CHEMICAL COMPANY
REFRIGERATION DIVISION
MARINETTE, WISCONSIN
DISTRIBUTORS FOR KINETIC'S "FREON-11," "FREON-12," "FREON-21," "FREON-22," "FREON-113" AND "FREON-114"

insist on
genuine

products

MARLO-HEAT TRANSFER
Since 1925

California City Votes Down 24-Hr. Watch On Refrigeration, Air Conditioning Systems

SAN JOSE, Calif.—A proposed city ordinance which would have required the maintenance of 24-hour service by operating engineers for medium-size, and larger, refrigeration and air conditioning systems was voted down by the city council here recently.

The ordinance, proposed by operating engineers, was termed an effort to "featherbed" the refrigeration industry in Central California by Z. E. Jones, executive vice president of the Refrigeration Contractors Association of Northern California, who appeared as spokesman in opposition on behalf of the association's board of directors and codes and ordinances committee.

Both sides were heard by the city council, which met as a committee of the whole. Not only did it vote against recommending passage, but it also passed a resolution definitely opposing such legislation on the ground that no evidence was submitted to show the need or justification for the proposed ordinance.

Jones pointed out that a very similar ordinance was proposed before the judiciary committee of the Board of Supervisors of San Francisco several months ago, but was successfully opposed for the same reasons.

"This proposed ordinance will bear careful reading," Jones declared. "Its real purpose can easily be detected between the lines. This industry is not ready to submit to such brazen advances and turn its business over

to a group of ambitious operating engineers to play with.

"Our defensive fight is not alone for contractors but also for our customers, particularly users of refrigeration and air conditioning systems of medium size and up, who would be required to maintain 24-hour 'operating engineer' service. This would amount to no more than a watchman service, for which there is neither need nor justification."

Under provisions of the ordinance operation of refrigeration of more than 25 tons capacity would have been put under the control of a city board of engineer examiners of five members, each of whom "shall have had at least five years practical experience as a steam engineer holding a first-class certificate as such."

The proposal lumped "stationary refrigerating machines" in with steam boilers and engines and Diesel or semi-Diesel engines.

Provisions affecting the refrigeration industry included:

1. Requirement of a "first grade" license for any person to "use or operate . . . any stationary refrigerating machine, irrespective of motive power, of more than 25 tons refrigerating capacity."

2. Requirement that a licensed engineer must always be in charge of such equipment. "Whenever such machinery, equipment or apparatus is used continuously throughout the 24-hour period, at least two licensed engineers must be employed, who may stand watch alternately."

Text of Defeated 'Featherbedding' Maintenance Law

There is hereby created the Board of Engineer Examiners, which Board shall consist of five members, all of whom shall be appointed by the City Manager. Each member so appointed shall be of good character and habits, a resident of the City of San Jose for at least three years, and each shall have had at least five years practical experience as a steam engineer holding a first-class certificate as such. Each member of the Board of Engineer Examiners shall receive the sum of \$ as compensation for each meeting of said board attended, not to exceed meetings in any one month.

It shall be unlawful for any person, firm or corporation to use or operate or to cause or permit any person to use or operate, any boiler or steam generating apparatus of one (1) hp. or more, carrying ten (10) pounds or more of pressure per square inch, or any steam engine or turbine or multiple unit thereof developing fifty (50) hp. or more, or any Diesel or Semi-Diesel engine of over fifty (50) hp., or any stationary refrigerating machine, irrespective of motive power, of more than twenty-five (25) tons refrigerating capacity, unless such person shall have an unexpired and unrevoked license issued by the Board of Engineer Examiners for the use or operation thereof, which license shall clearly set forth the particular apparatus, machinery or equipment for which it shall have been issued. A person having an unexpired and unrevoked First Grade License issued by the Board shall be entitled, without further license, to operate steam engines or turbines, Diesel engines, or any stationary refrigerating machine of any horsepower or capacity. A horsepower as used in this ordinance shall mean ten (10) square foot of boiler heating surface, or shall be determined by the manufacturer's hp. rating.

Every person applying for a license to use or operate any of the apparatus or equipment for the operation of which a license is required by Section 3 hereof, shall file with the Board a written application upon blanks furnished by said Board, which shall set forth the following information:

(1) The nature of the apparatus, machinery or equipment for the operation of which he desires a license; (2) His age and his previous experience in the use or operation of like apparatus, machinery or equipment, and its size, type and capacity; (3) The names and addresses of persons by whom he has been employed and the length of time of each such employment. Applications shall be sworn to before a notary public or other officer authorized by law to administer oaths, in the form of an affidavit.

Applicants for a license hereunder shall be at least 21 years, of temperate habits, and able to read, write and understand the English language; shall have had at least three years practical experience as assistant to a steam engineer or qualified operator of any Diesel engine or stationary refrigerating machine, or shall have completed a course of training that is, in the opinion of the Board, equivalent to such three years practical experience.

A fee of \$10.00 for examination shall accompany each application for a license required by this ordinance, no part of which fee shall be returned to any applicant who shall fail to pass the examination for which such fee is paid. All persons having an unrevoked and unexpired license to operate boilers, machinery, apparatus or equipment set forth in this ordinance at the date of its enactment shall not be required to submit themselves for examination.

All licenses issued hereunder shall be for the period of the fiscal year ending Nov. 30 and shall be renewable from year to year without further examination upon the payment of \$2.00.

The following classes of licenses are hereby established:

(1) Special license (valid only when used for the operation of machines, boilers or equipment at a designated location): For the operation of machines, boilers, apparatus or equipment generating more than ten pounds pressure per square inch, and developing from one to 25 hp.

(2) Third Grade license. For the operation of machines, boilers, apparatus or equipment generating more than ten pounds pressure per square inch, and developing from 25 to 50 hp.

(3) Second Grade license. For the operation of machines, boilers, apparatus or equipment generating more than 10 pounds pressure per square inch, and developing from 50 to 100 hp.

(4) First Grade license. For the operation of machines, boilers, apparatus or equipment generating more than 10 pounds pressure per square inch and developing 100 hp. or more; and for the operation of Diesel or semi-Diesel engines or stationary refrigerating machines, for the operation of which a license is required by the provisions of this ordinance.

It shall be unlawful for any person licensed hereunder to use or operate any machine, boiler, apparatus or equipment of greater pressure, horsepower or capacity than that which he is licensed to operate.

It shall be unlawful for any person, firm or corporation to use, operate or cause to be used or operated, any of the apparatus, boilers, machinery or equipment for the operation of which a license is required by Section 3 of this ordinance unless there be in charge thereof an engineer holding a license issued by the Board of Engineer Examiners, for the operation of such apparatus, boiler, machinery or equipment, as provided in this ordinance. Whenever such machinery, equipment, or apparatus is used continuously throughout the 24-hour period, at least two licensed engineers must be employed, who may stand watch alternately.

Every person violating any of the provisions of this ordinance shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine not to exceed the sum of One Hundred Dollars (\$100.00) or by imprisonment for a period of not to exceed thirty (30) days, or by both such fine and imprisonment.

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TUBES



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Please send me complete information regarding the new "Dri-Fan" Evaporative Condenser.

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Carrier Display at Modernization Show

At the recent Store Modernization Show, Carrier showed "Store Weathermakers" in three capacities. Inspecting a 5-ton "Weathermaker" at the Carrier booth are (left to right): Alfred Snyder, Carrier advertising department; J. J. Meehan of Thermodyne Corp.; and John Walsh of Carrier.



Business Volume Rises of 20-35% Reported For Stores Using Air Conditioning Units

NEW YORK CITY—Independent surveys showing increases in business volume of from 20 to 35% on a year-round basis as a direct result of air conditioning in stores, restaurants, and hotels were reported by Carrier Corp. representatives at the Second International Store Modernization Show here in July.

Three different models of the "packaged" air conditioners with which some of these results were achieved were shown by Carrier. They were the 3 and 5-ton Store Weathermaker and a Commercial Weathermaker, which ranges up to 15 tons in capacity.

The surveys on increases in business volume in air conditioned establishments were conducted by trade publications on either a nationwide or spot basis. One study was confined to beauty shops in the state of Ohio.

The poll showed that 17% of those questioned were using air conditioning, with an additional 7% in process of installing such equipment.

The air conditioned shops reported "an average increase in yearly dollar volume, following installation, of 36%." Approximately 95% of such shops showed a rise in customers.

Individual drugstores reporting from Detroit, Lincoln, Neb., Davenport, Iowa, and Asheville, N. C., showed sales increases ranging from 20% to well above 30%, with sales in some individual lines increasing by as much as 50%. The latter figure applied to summer toiletries in Lincoln, and to lunch business in a chain in Davenport.

In the hotel and restaurant field it was revealed that 98% of the individuals questioned considered air conditioning a "good investment."

Refrigerated Lawmakers

Central System, Packaged Units, Water Coolers Render Upper Floors of State Capitol Livable

LINCOLN, Neb.—Air conditioning is enabling the state of Nebraska to utilize approximately 15,000 sq. ft. of additional office space in the world-famous capitol building and thus meet a desperate need that was not foreseen when the edifice was started back in the early 1920's.

The capitol was erected just prior to the dawn of the "air conditioning era" and although some provision was made for cooling the huge structure by circulating of air over tons of ice stored in the basement, that system has not proved practical. The two-blocks-square building with its 400-ft. tower has been taxed to capacity as the state government became more complex, and now space above the second floor that formerly was good only for storage purposes because the Nebraska heat made it untenable, is being converted for office use.

Bonebright Heating & Air Conditioning Co. of Lincoln is installing the air conditioning equipment which will make available for offices about 300 ft. of space on the northwest corner of the capitol. Overhead insulation has been installed in the new space and air vents placed in the new ceiling.

The new air conditioning system is being hooked up to the old ventilation system which includes a heavy-duty Sturtevant blower. The old outlet for expelling air from the space will be employed as a fresh air intake, while a new vent for expelling used air has been installed in the side of the room housing the air conditioning equipment.

A 30-ton Worthington compressor has been installed to take care of the 15,000 sq. ft. of office space. Air conditioning equipment was installed in overhead space at the northwest corner of the building several years ago, with a high-speed compressor, which is showing signs of wear, so the new installation is of extra heavy construction.

The capitol also has been equipped with a number of packaged-unit air conditioning cabinets in offices throughout the first and second floors and the tower. Water in the built-in drinking fountains located at various stations in the capitol is cooled by running through iced coils in the basement, but as the number of offices and persons employed has increased, a number of mechanically-refrigerated water cooling units also have been installed in offices.

Air Conditioning Slated for Carolina Masonic Temple Bldg.

NEW BERN, N. C.—Construction work has started on a \$300,000 addition to the Masonic Temple here. Air conditioning units will be installed by Stohl & Rider Co. of Raleigh.

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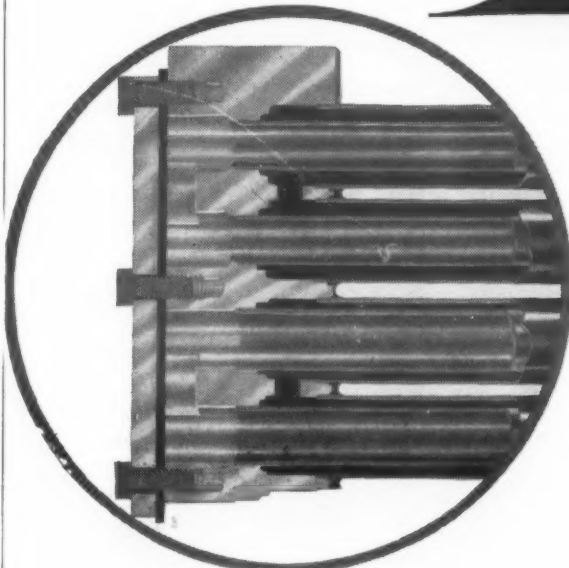
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Objective: Operational Economy

Answer:

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One of the surest ways to obtain economical condenser operation is to get the maximum heat-transfer capacity by taking the most heat from the refrigerant in the shortest period of time.

Halstead & Mitchell's New Two-Stage Condenser design makes possible greater concentration of copper water-tube surfaces in the lower portion of the condenser. The smaller top water tubes allow ample refrigerant space, thereby eliminating resistance or pressure drop and affording the lowest possible head pressures.

The new Two-Stage design improves refrigerant velocity and increases heat-transfer efficiency. Thus, with this construction, greater heat-transfer values are affected.

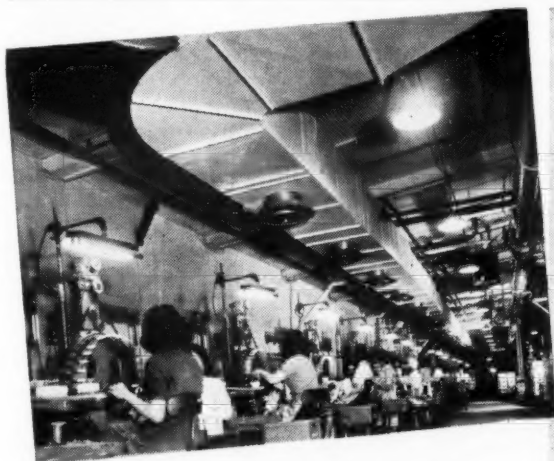
HM Condensers available from 1/2 to 10 H. P. from wholesalers in principal cities.

HM Cleanable Condensers can be maintained at "new-unit" efficiency and economy by regular and continued use of a standard cleaning tool. Water tubes are accessible at both ends—just loosen a few bolts and slide the end plates off—and there is nothing to obstruct the simple cleaning operation. The cleaning tool HAS to clean! Each quick cleaning operation takes only minutes, yet adds months and years of the most efficient and economical service to the life of the condenser.

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Self-Contained Inner Unit



FAST INSTALLATION



Air Volume Adjustment

PROBLEM:

A ceramic kiln radiates heat on one side and a cold window-filled wall creates drafts on the other. The space is long and narrow with low head room. The occupants work in short sleeves. Unusually large volumes of supply air have to be brought in to combat the heat of the kiln. Space for duct work above the room is limited so that diffusers have to be spaced much closer than usual. The supply air stream has to be directed slightly above the horizontal and evenly distributed so that no drafts are felt by the personnel.

SOLUTION:

Kno-Draft Adjustable Air Diffusers were chosen because of their ability to control air direction, volume and throw. A "custom-made" air pattern was created which thoroughly mixed room and supply air, maintained uniform temperature throughout and eliminated drafts, hot spots, and cold spots. Installation was fast. Kno-Draft self-contained inner units cut installation time up to 50%. Balancing was fast. CFM readings were taken directly with Velometer. A twist of the wrist changes air volume on each diffuser.

Free — New handbook on Air Diffusion

It contains the latest engineering data on air diffusion and is profusely illustrated with charts, photographs, sketches and dimension prints that simplify the selection, application, location, assembly, erection, testing and adjusting of Kno-Draft Adjustable Air Diffusers. It is designed to help you get top efficiency from an air conditioning system by creating "custom-made" air distribution patterns.

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The following qualifications are essential:

- Thorough knowledge of commercial low-sides. Graduate engineer preferred.
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To the right man, this position offers a permanent connection with remuneration in excess of \$9000 yearly.

Reply by letter only giving complete personal data and business background. All replies will be treated with strict confidence.

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Refrigeration Problems

And Their Solution

By Paul Reed

For Service and Installation Engineers



Paul Reed

Mystery of the Hidden Moisture (1)

How many service engineers have had the experience that Joe had? Here was a job that had been running swell for almost a year, and all at once it turns up with a frozen expansion valve and a lot of water in the system.

A frozen expansion valve and moisture in the system isn't so uncommon, but why didn't it show up right away? Did the water just get in? It didn't sound reasonable to Joe that it had been in the system all those months and not show up.

And yet, how could it get into the system? No one had touched it for months, and it had never operated at a suction pressure below around 21 p.s.i.

WHAT THE JOB CONSISTED OF

But to begin at the beginning: Early last winter Joe put in a 10-ft. case, combination top display and bottom storage. It was equipped with a finned coil mounted on the front wall of the storage compartment and

a bare tube evaporator just under the meat pans. The thermostatic expansion valve fed into the finned coil first, then up into the bare coil, the last two tubes of which acted as a drier coil, and finally back to a 1/4-hp. air-cooled hermetic condensing unit, located in the basement, but not more than 30 ft. away.

Joe was a pretty good man; he had been in the business 10 years and he knew a lot of things not to do. He had a vacuum pump that he carried with him to use in pumping a vacuum on a new installation, but on this job he didn't use it. He'd had a little trouble with the motor on it and hadn't had time to fix it. Especially since it was a hermetic, he didn't like to use the compressor to pump a vacuum with. He knew that a lot of men just "blew out" a new job, so since he was plenty busy, he took a chance.

HOW IT WAS INSTALLED

He installed the job pretty carefully though. He blew the lines a long while, and since he had not pulled a vacuum on the job, he put on an extra large dehydrator, one that held almost a pound of silica gel.

The condensing unit had a "holding-charge" of a pound of "Freon-12" in it, and Joe used most of it in purging. He added almost a full service cylinder of "Freon-12" in vapor form through the suction service valve.

With a pressure of about 50 p.s.i. in the system, he went over the job with a halide torch, found a couple of little leaks, and fixed them.

He started up the job; checked the expansion valve, reset it a little; set the pressure control to cut-in at 34 p.s.i. and cut-out at 22 p.s.i.; checked the oil level, added some oil; and left the installation with the feeling that it was ok.

And it seemed to be. He stopped by the next day and re-checked the compressor oil level. The customer wanted the case a little colder, so Joe reset the cut-out of the pressure control to 21, but left the cut-in at 34 p.s.i.

FROZEN EXPANSION VALVE AFTER SEVEN MONTHS

Not a bit of trouble all winter. Then about May it started. On a call from the customer he went out. User said it had been all okay until that day, when suddenly the case temperature went up.

Just a little of the evaporator was frosted so Joe went down in the basement. He found the machine short cycling, so his first thought was that there had been a leak. The receiver had no liquid level test cocks nor sight glass, but Joe put on his gauges.

He found the discharge pressure only a little low, probably because of short cycling, but the discharge tube was hot, and Joe decided that it didn't act like low charge. Seemed to him that it acted more as if the expansion valve were sticking. He put his hand on the feeler bulb to warm it and open the valve, but nothing happened.

He was about ready to blame it on the expansion valve—"Probably lost its charge," thought Joe.

MOISTURE OR WAX?

He had heard about "wax in the expansion valve" although he hadn't had any cases that he could lay to that cause. He had used only the oil recommended by the factory, and besides he had very little low-temperature work; most of it being store fixtures and air conditioning.

So he lit his torch and carefully warmed up the expansion valve. Very soon it "broke loose" and the evaporator frosted up as nice as could be.

He told the user that he would be back that way in a couple of hours, but before that, the user called again. When he went out, Joe found the expansion valve frozen, as before.

This time he pumped the job down, took off the expansion valve and examined it for wax. There was no indication of wax but he did get a drop or two of what appeared to be water. He put on a new valve and a new dehydrator.

THREE DRIERS TO CURE IT

The job started off all right but froze up again in less than an hour. Joe put on another dehydrator, but he had to put on still another before he got the installation dry.

"I don't get it," said Joe. "Maybe I should have pumped a vacuum on the job when I first put it in. But if it had water in it then, why did it take seven or eight months to show up? If it was in there all that time, where was it? Didn't it circulate with the refrigerant, and if it didn't, why didn't it? Where could it have stayed hidden?"

"If it wasn't there originally, how did it get in? No one serviced it from the time I installed it until I was called the other day. I don't see how moisture could have got in. The pressure control was set to cut off at 21 p.s.i. so it couldn't have ever been on a vacuum, unless the control stuck closed some time, and if the control stuck closed what caused it to open? And another thing, I just tested it for leaks again today and there seems to be none, and it seems to have a full charge."

"I can't figure out where all that water came from all of a sudden, but it must have been in there all the time."

Can you figure out where the water was and why it did not show up for months? Joe has given us the clue. Can you recognize it?

In the next instalment a couple of other men tell of similar experiences, and they, too, give clues to where the moisture was and why it caused no operating trouble for months.

(To Be Continued)

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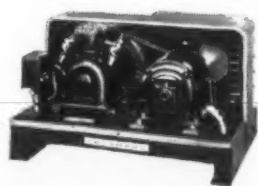
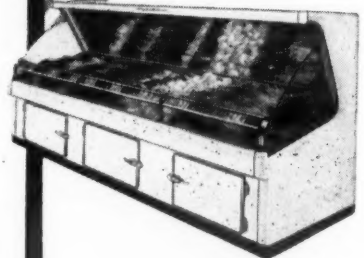
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The completeness and quality of the HUSSMANN Line assure satisfaction to the user as well as to those who service the equipment.



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Moss Atlas 'Lo-Boy'



Table-Top Model--

(Concluded from Page 1, Column 2)

top will furnish 4 sq. ft. of work surface, according to Victor J. Moss, president of the firm.

Interior dimensions are 19 in. high, 19 1/4 in. wide, and 17 in. deep. The cabinet liner is of all-welded construction finished in vitreous enamel. The exterior is finished in polished, baked white enamel over rustproofed, all-steel construction.

The Lo-Boy is equipped with a 1/2-hp. hermetic condensing unit using "Freon" as the refrigerant. It can use either 50 cycle, 220 volts or 110 volt, 60 cycle a.c., single-phase current.

The unit has a shipping weight of 231 lbs.

Serval Conditioner Explained To Montgomery, Ala. Group

MONTGOMERY, Ala.—For the purpose of describing the new Serval gas air conditioning unit to be used primarily in private homes, the Alabama Gas Co. was host recently to approximately 50 Montgomery contractors, builders, and architects at a banquet meeting in the Whitley hotel.

Charles Pierce, assistant manager of the air conditioning division of the company, attended the meeting and explained the advantages of the unit and method of installation. One of the units was on display.

Free on Loan Basis

Kelvinator Documentary Film Combats Debunkers of American Way of Life

NEW YORK CITY—"To present a vivid pictorial reminder of the things that have made America great," a full-color sound motion picture entitled "Of This We Are Proud" has been produced for Kelvinator Division, Nash-Kelvinator Corp., which will make it available for showings throughout the country.

Its preview was presented before a meeting of the National Federation of Sales Executives here by Charles J. Coward, Kelvinator advertising and sales promotion director, who urged the sales executives to "sell and resell" freedom and the American way of life to the American people as a basic step in a "struggle for survival against the economy of the controlled state."

Coward said Kelvinator decided to produce the documentary film on America "because of the growing recognition on the part of all business, that we cannot let the critics and demagogues who would tear down our American system of free enterprise, have the stage all to themselves."

"If the American system is to survive in the face of the philosophies which its critics are trying to sell in its place, then we must recognize that it must be sold and re-sold," Coward said. "It is our wish that you look upon this film, not as a Kelvinator enterprise, but as a move of one business firm to sell America at home."

The film itself is a dramatic review of high points in the growth of the United States. It lays emphasis on the ideals of liberty, equality and justice outlined by the nation's founding fathers, and attempts to show with carefully selected flash-backs, America's growth from its humble origins to the present.

There are field and factory scenes, views of most of the large U. S. cities, national landmarks and historical shrines, including Plymouth Rock, Independence Hall, the green at Lexington, the Nation's Capital, and Mt. Rushmore.

To make the film absolutely authentic, 10 cameramen travelled a total of 18,000 miles over 20 states visiting the actual places shown. Views of Boston's Old North Church, the Salem Witch House, the first textile mill in America at Pawtucket, R. I., and others were photographed on the spot. A cabinet-maker scene features the actual square-cut nails taken from a 75 year-old house near Biddeford Pool, Me.

One scene illustrating the opportunities for progress under the American free enterprise system shows an early inventor working on a small model of a sulky plow. The miniature in the scene actually is the original inventor's model of the first sulky plow.

"Of This We Are Proud" is a 16-mm film with a running time of about 22 minutes, produced in Hollywood, Calif., by the Raphael Wolff Studios.

The film will be available from Kelvinator headquarters in Detroit on a free loan basis to anyone, the company has announced. The only charge will be for transportation.

Prints will also be sold to Kelvinator distributors who can make it available on the same basis in their territories, it was announced.

Price Co., Air Conditioning Firm, Moves to New Quarters

CHARLOTTE, N. C.—The A. Z. Price Co., Inc., air conditioning, heating, and plumbing engineers, has moved its offices from the Piedmont building to 206 South Church St.

The Price firm is distributor for General Electric air conditioning and heating, and this equipment, as well as other types handled by the company, can now be seen in the spacious Church St. showroom.

Air conditioning contracts recently completed, or now in force, include Fruehauf Trailer Co.'s new building and Sears, Roebuck & Co.'s new building here.

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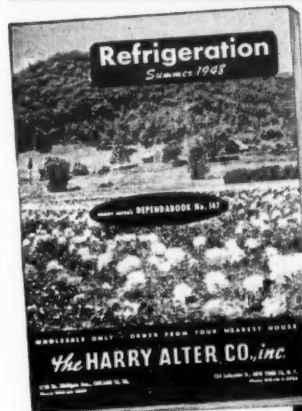
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	3 tiers—15 trays—210 cubes each freeze
	3 tiers—24 trays—336 cubes each freeze
B	5 Bushel Storage Capacity (2000 cubes)
	3 tiers—24 trays—336 cubes each freeze



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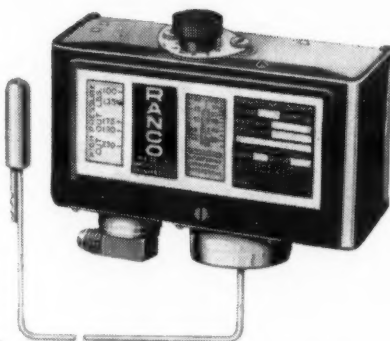
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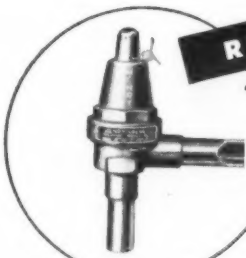


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\$5,000.00 REWARD!

I represent a client who desires to purchase outright the patents or applications covering apparatus or a method of automatically defrosting a low temperature forced convection coil. The system must use a method other than water. We will pay up to \$5,000 for the patent or application, depending upon commercial value, if the invention meets our requirements and satisfies our patent investigation. Reply in writing only, and give full information.

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PA 100 is your guarantee of all-around, superior performance
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MODEL J SHELL AND TUBE CONDENSERS
Low cost, easy-to-clean, sturdy built for long life—1/2 ton to 25 tons.



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Compact, inexpensive, efficient. Steel shell, copper coils. 1/2 H.P. to 5 H.P.



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These condensers are for both FREON and Methyl-Chloride and are Underwriters Laboratory Approved. Your Jobber can supply you—or write direct

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- Beautiful Display Space
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Deluxe is the right word when you're describing MIRACOOOL's Florist cooler. Designed by experts... made by experts, it's the cooler florists ask for when they're buying beauty and performance.

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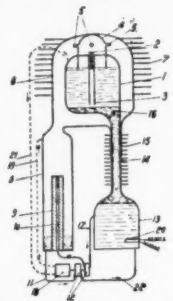
The CLEVELAND REFRIGERATOR CO.
2901 EAST 55TH STREET CLEVELAND 4 OHIO
Manufacturers of Custom Built Refrigerators Over A Quarter Century



PATENTS

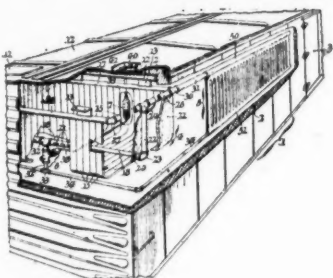
Weeks of April 20 & 27

2,440,079. **REFRIGERATING MACHINE.** Andoin d'Holloy, Paris, France. Application Aug. 29, 1939, Serial No. 292,437. In Luxembourg Sept. 13, 1939. Section 3, Public Law 650, Aug. 8, 1946. Patent expires Sept. 13, 1958. 8 Claims. (Cl. 62-5.)



1. In refrigerating apparatus, a vessel having a solution of a refrigerant therein, a receptacle having liquid refrigerant therein, a tube connecting said vessel with said receptacle, a supply of liquid filling said tube, said liquid being immiscible with said solution of the refrigerant and immiscible with the liquid refrigerant, and means for cooling said tube.

2,440,098. **RAILROAD CAR REFRIGERATED BY DRY ICE AND A SECONDARY REFRIGERATING SYSTEM.** William M. Keller, Merion, Pa., assignor to The Pennsylvania Railroad Co., Philadelphia, Pa., a corporation of Pennsylvania.

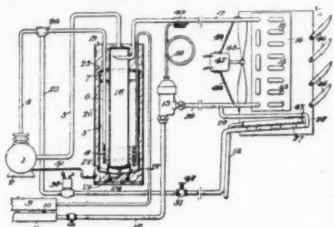


2. In combination with a railway refrigeration car a refrigeration system comprising an insulated ice bunker having heat transfer pipes connected to top headers and a common bottom header, a cooling evaporator disposed within the lading space of the car, a thermostatic control valve connected to the common bottom header and responsive to temperature variations in the lading space of the car, a circulating pipe connecting the top headers to the top of the evaporator and a circulating pipe connecting the control valve to the bottom of the evaporator.

2,440,146. **DEFROSTING MECHANISM IN REFRIGERATING APPARATUS.** Israel Kramer, Trenton, N. J., assignor to Kramer Trenton Co., Trenton, N. J.

1. Apparatus of the character described comprising, a gas compressor, an evaporator, an element for storing heat, means

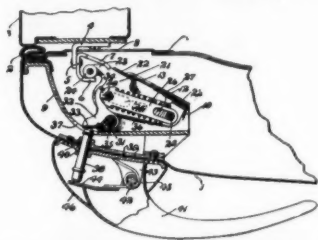
for conducting gas from the compressor to said element to accomplish the storage of said heat, means for conducting gas



from the compressor to the evaporator for defrosting the evaporator, means for conducting gas after it has been condensed in the evaporator during defrosting to said storing element to be vaporized by the stored heat of said element, and means for conducting said gas to the compressor.

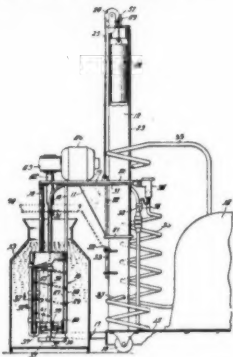
2,440,162. **REFRIGERATION LATCH MECHANISM.** Lloyd L. Anderson, Grand Rapids, Mich., assignor to Winters & Crampton Corp., Grandville, Mich.

1. A latch structure comprising, a housing having spaced apart sides connected at one edge and adjacent one end by a cross member, the edges of said housing sides being continued therebeyond as



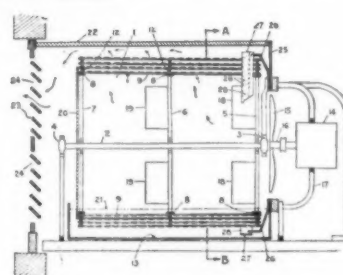
straight inwardly extending flanges for a distance and then curved and extending at an angle for a short distance toward the opposite edges of said sides and then reversely curved and extended therebeyond in the arc of a circle toward said opposite edges, and from the ends of said arcs extended to the opposite edges of said sides, a rod located between the sides of the housings near the first mentioned end thereof, a latch bolt formed of sheet metal having spaced apart sides connected at one edge by transverse means, said latch bolt being pivotally mounted on said rod, a roller carried at the free end of the latch bolt between the sides thereof, said latch bolt having slots in its sides toward the roller carrying end thereof, a bar having a longitudinal slot adjacent one end, said rod passing through said slot, whereby the bar is pivotally and slidably mounted on the housing, a cross pin passing through said bar at its opposite end and through the slots in the sides of the bolt, rollers mounted at the ends of said cross pin bearing against the flanges on said housing, and a coiled compression spring located around said bar adjacent its opposite end having shoulders against which the other end of the spring bears.

2,440,397. **IMMERSION TYPE REFRIGERATING DEVICE.** James S. Erickson, Danville, Ill., assignor to Sugar Creek Creamery Co., Danville, Ill.



1. A cream cooler of the class described, comprising a cooling unit adapted to be immersed in cream contained in a conventional cream can, means for vertically adjustably supporting said cooling unit to thereby facilitate lowering of the unit into a can of cream positioned thereunder, means for supplying refrigerant to said cooling unit, a scraper adapted to be moved over the cooling surface of said cooling unit to prevent accumulation of chilled and more or less congealed cream on said surface, and means for actuating said scraper.

2,440,446. **APPARATUS FOR COOLING OR CONDITIONING AIR OR OTHER FLUIDS.** Richard Joseph Kenny, Bhowra, British India.



1. An apparatus for cooling or conditioning air or other fluid, comprising in combination a casing, a rotary drum within the casing, consisting of at least one perforated circumferential layer, forming an evaporating surface, a water tank below the drum for wetting the lower part of the said layer as the drum rotates, a fan facing one end of the drum for supplying a draught of air through the drum to rotate it when the draught of air from the fan passes therethrough, an air leakage check ring secured to the end of the drum facing the fan and blades provided on the said check ring which are so inclined to the axis of the drum that the air passing into the check ring will cause these blades to rotate the drum in the same direction as it is turned by the vanes secured to the inside of the drum.

(To Be Continued)

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RATES for all other classifications \$5.00 per insertion 50 words or under. 10¢ ea. additional word.

ADVERTISEMENTS set in usual classified style. Box addresses count as five words, other addresses by actual word count. Please send payment with order.

POSITIONS WANTED

ARE YOU looking for a man who is young in years (40) but old in experience (22 yrs.) in air conditioning, refrigeration, and heating, who is desirous of a traveling position where ability in management, sales, sales engineering, service, installation, manufacturing, and design would be helpful? For further information write BOX 2871, Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

WANTED: SALES Engineer on refrigeration and air conditioning. Must be able to estimate and lay out his own work. Should be college graduate in Mechanical Engineering with at least five (5) years field experience. Salary, bonus, and traveling expenses. Submit qualifications with photograph to H. A. C. Smith, District Sales Manager, BAKER ICE MACHINE CO., INC., St. Louis 6, Missouri.

WE OFFER you a chance to improve yourself. Here is a real opportunity for an experienced engineer to design Chrysler Airtemp air conditioning systems for Four-Star Dealers in Florida. Salary, \$100 per week, plus bonus at end of year. Write G. W. McCOY, P. O. Box 1034, Tampa 1, Florida, stating experience, education, references and other pertinent information.

WANTED—MANUFACTURERS agents—Refrigeration... nationally advertised line of commercial refrigeration needs representation by manufacturers' agents in many territories. Agents must have relative, but not competitive lines calling on refrigeration dealers and ice cream manufacturers. Line consists of five sizes of dry beverage coolers from 4 to 12 feet, walk-in coolers in all sizes, ice cream cabinets, push carts, and ice cream shoulder vending boxes for concessionaires. Only experienced refrigeration agents need apply. Write first letter in own handwriting giving qualifications, references, territory now traveling, and telephone number. After receipt of references will contact to arrange for personal interview. W. ALLEN ROGERS INDUSTRIES, INC., Box 272, Demopolis, Alabama.

AGGRESSIVE COMMERCIAL refrigeration salesman in one of the fastest growing sections of the U. S. We have top lines of nationally known equipment. No "has-beens" or alcoholics. WASHINGTON ENGINEERING CO., Box 724, Spokane, Washington.

SERVICE MANAGER: Established distributor of domestic home appliances in Northern Illinois offers an opportunity to a man with the necessary qualifications to direct an outside service operation. In reply state age, experience and other qualifications and salary expected. BOX 2849, Air Conditioning & Refrigeration News.

SALES ENGINEER—Prominent midwest manufacturer of automatic temperature and pressure control equipment has position for well qualified engineer. Experience in sales and application engineering of automatic controls desired. This is an excellent opportunity for a capable man who wishes to become associated with a progressive concern. In reply give age and full details of education and experience. BOX 2870, Air Conditioning & Refrigeration News.

SALES REPRESENTATIVES wanted for nationally known standard component parts for refrigeration units; blowers, coils, compressors, evaporators, etc. Also condensing units. Call on manufacturers and supply houses. Exclusive territories in Atlantic Seaboard States, Maine to Florida, also Pennsylvania, West Virginia. Write full particulars BOX 2872, Air Conditioning & Refrigeration News.

OPPORTUNITY FOR sales engineer, preferably with commercial application experience, to join young aggressive national organization. Complete line of high quality commercial refrigeration and refrigerator equipment. Dealer contacts desirable but not essential. BOX 2875, Air Conditioning & Refrigeration News.

EQUIPMENT WANTED

NEW YORK area sales representative. 10 years with one of the national manufacturers. Starting own agency. Ample financed. Want packaged air conditioners, condensing units, fixtures. Finest of references. BOX 2869, Air Conditioning & Refrigeration News.

EQUIPMENT FOR SALE

SEALED UNITS rebuilt and exchanged. Prompt service on Coldspot (sealed & semi-sealed), Chieftain, Gale, Tecumseh, Norge and many others. One year guarantee. Write for price list and shipping instructions. BRIGHTON, 16640 Log Cabin, Detroit 3, Mich.

CUSTOM BUILT cabinet style 2 1/2 gallon frozen custard machines, stainless steel covering. Complete except for condensing unit and dasher motor. \$500 F.O.B. Cleveland, Ohio. ENTERPRISE PRODUCTS, 3550 West 50th Street, Cleveland 2, Ohio, Phone OLYmpic 0462.

AVAILABLE FOR immediate delivery two new ten H.P. gasoline-driven Universal Cooler refrigeration units, also suitable for air-conditioning application. Complete with spare parts & tools. Packed for export F.O.B. NY \$400 ea. GENERAL REFRIGERATORS CORP., 678 Bway, NY 12, N. Y. GRamercy 3-1222.

SECOND HAND refrigerators, all makes and models in operating condition for immediate delivery. HANTOBER & CO., INC., 200 East Church Lane, Philadelphia 44, Pa.

5 HP MILLS & Par condensing unit \$395. 5 HP Typhoon weathermakers \$395. 1 IP Amco weathermakers \$175. The following less motors: 50 HP Schnacke \$395. 1/2 IP Universal \$49. 1/2 & 1/4 HP Copeland \$39. 1/4 HP Universal sealed \$79. Westinghouse 2 1/2 ton used self-contained Air Conditioner \$395. Some as is used Servel and Frigidaire refrigerators. PILGRIM REFRIGERATION CO., 48-20 43rd Avenue, L. I. City 4, N. Y.

SEALED CROSLLEY terminals. Installed from the outside in a few minutes without opening the compressor or removing unit. No special tools needed. Stops leaky terminals on "F-12" units. Part #1020 short model—for short Croslley terminals ("F-12" compressors with 4 mounting legs). Part #1020 long model—for long Croslley terminals ("F-12" compressors with 3 mounting legs). \$5.25 set of three. Immediate delivery. Money-back guarantee. SEALED UNIT PARTS CO., 3097 Third Ave., New York 56, N. Y.

HERMETIC UNIVERSAL Cooler units—Subject to prior sale. 1/2 H.P. fan cooled—Mod 515L11 Hermetic \$52.50. 1/4 H.P. fan cooled—Mod 514L11 Hermetic \$57.50. 1/4 H.P. fan cooled—Mod 614L11 Hermetic cap. start \$59.50. 1/4 H.P. air cooled—Mod 25FL1 open \$53.50. 1/2 H.P. air cooled—Mod TA33FS1 open \$62.50. 1/2 H.P. air cooled—Mod DD33 FL1 open \$64.50. 1/2 H.P. air cooled—Mod DD50FL1 \$84.50. Prices quoted on lots of 6. All above units are 60 cycl-1 phase—new with factory warranty. 1/4 O.D.S. Henry packless—2 way line valves \$2.00. 1/2" or 3/4" Flare Kerotest—2 way line valves packed with Hex Cap. \$85. Heavy duty Mueller "Freon" relief valves 1/2" solder \$2.00. Filter driers—silica gel—1/4 flare 1 1/2" x 6 1/2" overall lots of 10 \$65. U. S. "Freon" gauge—4 1/2" face 30" vac—150# or 300# with corresponding temp scale and red adj. warning hand \$4.50. Genuine Frigidaire Model L00—type YL—low pressure control \$4.25. Penn dual pressure control type 126IP3 \$10.00. M. H. dual pressure controls type-P421 \$4.00. G. E. blower fan motor with 10" fan \$4.25. F.O.B. Chicago. WALTER W. STARR, 1207 George St., Chicago.

REBUILD YOUR own sealed units. Send us your burnt and stuck up heads and they will be immediately replaced from our stock. Send for our complete price list. TECHNICAL REFRIGERATION SPECIALISTS, 362 East 180th Street, Bronx 57, New York.

BUSINESS OPPORTUNITIES

AUDEL'S REFRIGERATION & Air Conditioning Guide. A useful manual, 1280 pages. Fully illustrated, covering the theory, construction, servicing, operation and repair of household, commercial and industrial refrigeration & air conditioning. 1001 facts. Easy to understand. Highly endorsed by service men and mechanics. Price \$4 postpaid. Money refunded if not pleased. AUDEL PUBLISHERS, 49 West 23 St., New York 10, N. Y.

APPLIANCE STORE and Record Shop. Northeast Texas county seat town, 5,000. Excellent opening good refrigeration man. Ideal for couple; wife to keep store, husband work, sell outside. Records alone more than pay overhead. Ample space, good lease, \$50 month. Inventory, purposely reduced for sale to about \$5,000. buys all. Goodwill, franchises free. GILMER APPLIANCE CENTER, Gilmer, Texas.

SERVICE ENGINEERS attention. Shop, approx. 20'x40'. Tools, inventory & phone established & operating, complete. Semi-tropical climate, very healthful, housing available. Extremely low price. Western state. BOX 2873, Air Conditioning & Refrigeration News.

WORKING PARTNER for going domestic and export heating, refrigeration, air conditioning and general contracting business to invest at least \$12,000. Must have knowledge of refrigeration, air conditioning and willing work long hours. Location New York City. BOX 2874, Air Conditioning & Refrigeration News.

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ELECTRIC MOTORS

1 H.P. to 75 H.P.

(Inclusive)

All 3 Phase

Normal and High Torque

WAGNER—RELIANCE

FAIRBANKS, MORSE

1800 RPM

MANUFACTURER'S

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LESS 15 and 5 PER CENT

F.O.B. Charleston, W. Va.

CONDITIONED AIR, INC.

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Graphic 'Props' Used In Frigidaire's Commercial Refrigeration Training School



Frigidaire has opened a "continuing" Commercial Refrigeration and Air Conditioning School, using special techniques and stagecraft to teach field engineering and sales tactics to the field selling force. (At left) Early registrant is Leland L. Adams, center, dealer from Hamilton, Ohio, greeted by E. C. Lewis, school director, and registered by Wanda Staley. (Right) W. F. Switzer, commercial sales manager, points out some market factors. Switzer and others of the key management group have places on the school program.



Driving home the point that "when refrigeration equipment balances the load, balanced refrigeration results," is R. A. Blakelock, assistant school director. He uses the scale balancing setup to show that the cooling unit, compressor, and controls should equal the product load plus heat leak plus service load. This is just one of the many stunts used to make the training "alive."

Factory Course To Fill Field Need For Trained Men

DAYTON, Ohio—A factory-conducted Commercial Refrigeration & Air Conditioning sales training school, designed to help Frigidaire commercial dealers overcome the current lack-of-experienced-salesmen problem, has been opened in Dayton on a continuing basis by Frigidaire Division of General Motors.

In announcing the new school, Ellsworth Gilbert, sales promotion manager, pointed out that commercial dealerships are facing a critical shortage of experienced, hard-hitting salesmen.

Enrollment in the school is open to all Frigidaire dealers and their salesmen. Each school is of two weeks duration. Classes are limited to 60 men, facilitating individual and personalized instruction. Subjects are presented from a practical rather than theoretical viewpoint. Latest training techniques are employed.

To clarify these three main funda-



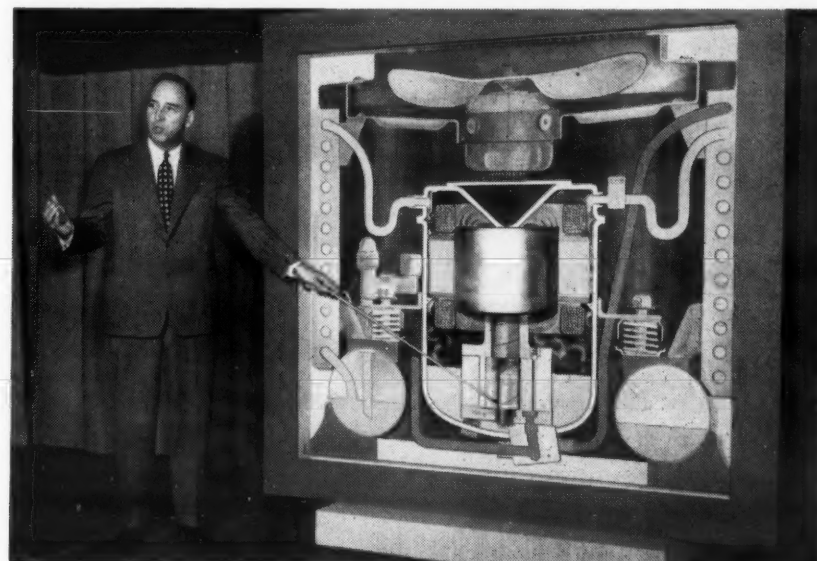
Using a model building structure, complete with insulation and awning, E. J. Boyer of Air Conditioning Sales demonstrates essentials in estimating air conditioning job.

mentals, the following subjects are covered in detail: "Basic Fundamentals of Refrigeration"; "Engineering and Manufacturing"; "Basic Elements of General Refrigeration Equipment"; "How Basic Elements Are Used to Handle All Refrigeration Jobs"; "Determining the Refrigeration Load"; "Selecting and Specifying Equipment"; "Packaged and

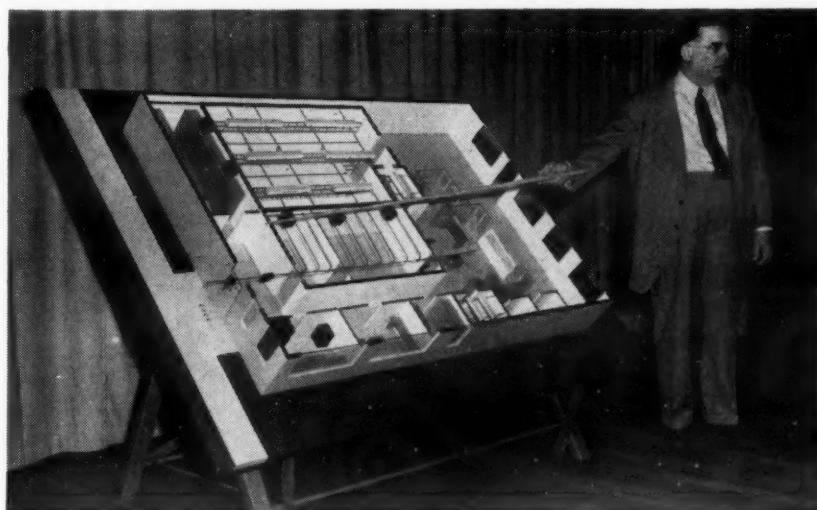
Special Equipment," including display cabinets, reach-in refrigerators, frozen food and ice cream cabinets; "Air Conditioning"; "Industrial Applications"; "Selling the Products," and "Service."

To do this teaching job thoroughly, Frigidaire employs special visual presentation and demonstration devices ranging from huge charts, model buildings, and actual-size products on down to tiny refrigerant controls, test tubes, and other laboratory paraphernalia. Nine hours of student participation have also been included in the course. Students demonstrate "Greeting the Customer," "Product Demonstration," "Closing the Sale," and "Overcoming Objections."

A full-time teaching staff has been assigned to the school, assisted by specialists from Commercial & Air Conditioning Sales, Sales Training, Advertising, and Service. C. S. Trigg, sales training manager, is in charge of general direction of the school. E. C. Lewis, assistant sales training manager for commercial products and a veteran with more than 20 years experience in commercial sales and sales training, is school director. He is assisted by R. A. Blakelock.



Describing the design and operating features of the "Meter-Miser" commercial rotary compressor is A. C. Freimann, assistant commercial sales manager. The huge, animated cutaway simplifies his task in tracing the action of the compressor.

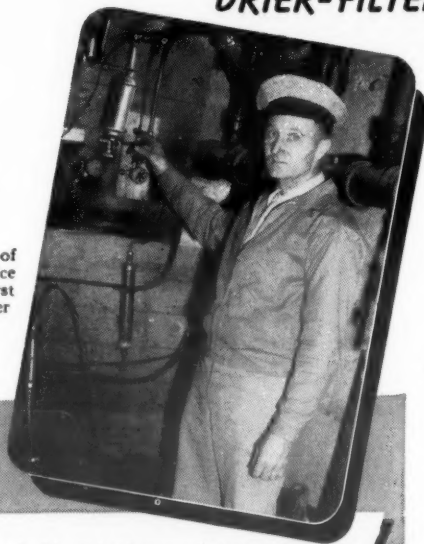


Step-by-step assembly of a model refrigerated locker storage plant, made in three-dimensional style on an inclined display board, illustrates the locker plant study conducted by J. A. Smith, Frigidaire locker plant specialist, at the company's new, continuing Commercial Refrigeration and Air Conditioning sales training school for dealers and salesmen.

NO MORE FREEZE-UPS WITH 'Cross-Flo' DRIER-FILTER

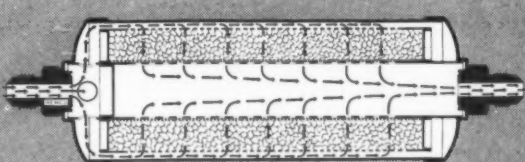
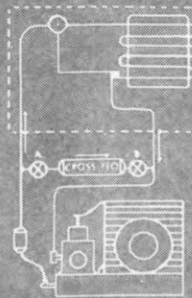
installed in the by-pass between the liquid & suction lines.

That's the enthusiastic report of M. R. Pielstick (Pielstick Refrig'n Service Buhl, Idaho) after he installed his first Cross-Flo (bought from his wholesaler N. O. Nelson Co. of Salt Lake City).



Mr. Pielstick found the answer to a problem that had been bothersome for months—using several other types of driers, he had been unable to get the moisture down to where it wouldn't freeze up. Then he installed a Cross-Flo in a lower temperature location (see diagram below) where the drying efficiency of silica gel was so greatly increased that service troubles from expansion valve freeze-ups were entirely eliminated. Now he's an enthusiastic and exclusive Cross-Flo user.

Diagram below shows Cross-Flo's principle of flowing the refrigerant uniformly through the outside coarse-filter then slowly across the large cylindrical bed of drying agent, finally flowing slowly through the extra-large highly-efficient filter.



REMCO HEAVY-DUTY "Cross-Flo" DRIER-FILTERS

—CAPACITIES—

LIQUID LINE: 1/4 to 7 1/2 HP
LOWSIDE: 1/4 to 15 tons Freon-12
SUCTION LINE: 3/8" to 1 1/2" O. D.

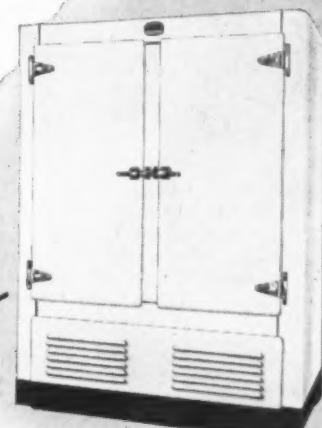
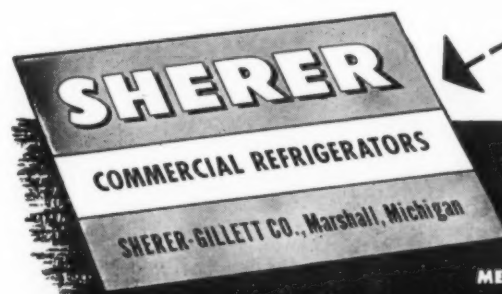
Send for Circular 711-A for all the facts about temperature effect on drier performance.

Carried in stock by leading wholesalers everywhere

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ASSURED PERFORMANCE in Reach-in Refrigerators

Recognized as quality products SHERER
Reach-in Refrigerators will continue to be built to the same high standards that have earned them their present outstanding position in the industry.



One member of a complete quality line designed to be salable in volume at a profit.

VEGETAIRES • DAIRY CASES • REACH-IN
REFRIGERATORS • WALK-IN COOLING ROOMS •
MEAT & DELICATESSEN DISPLAY CASES •

Buys Steel Plant--

(Concluded from Page 1, Column 2) all subjects pertaining to the frozen food industry, he asserted. As such, he said, it could not be connected with the acquisition of the steel mill.

Dr. Bryant, who will direct the steel plant's operations as president and general manager, with the aid of a committee of steel men, declared that contributors to the associate industrial membership will receive steel in accordance with the size of their contribution to the membership.

The membership originally asked him to purchase steel for them and named him trustee of funds each contributed for the purpose, according to Dr. Bryant. These funds will continue to be used for the purchase of steel from the Sterling plant, he said. Sterling will operate as a private enterprise and will take its rightful profit on steel sold to members, he added.

Purchase price of the plant was said to be approximately \$500,000 while rehabilitation will cost about \$2,000,000.

Dr. Bryant plans to add a third open hearth furnace of a minimum of 50 tons capacity to the plant and increase the present furnaces from 35 to 40 tons capacity.

Current steel ingot capacity of the plant, he said, is about 3,500 tons per month. Ultimately it will be about 9,000 tons per month, it was predicted.

As the rehabilitation of the plant progresses, the present employment of 130 persons will increase, he noted.

Location of the plant at Braddock is expected to result in further economies to participating members as the processing plant is very close to sources of raw steel.

The foundry is currently employed in manufacturing steel castings and will continue to fill present orders, according to Dr. Bryant.

Credit Tightens--

(Concluded from Page 1, Column 5) for 10% down by the dealer with the balance to be paid in 90 days. If the dealer doesn't pay the balance in 90 days, he can get three 30-day extensions, but must pay another 10% on the balance as each extension comes up. If at the end of the extensions the dealer can't or doesn't pay up the balance, steps are usually taken by the finance company to collect.

It is said that a few banks which have been engaging in wholesale financing have "closed down" on some accounts after the 90-day period, not granting any extensions, and thus forcing some liquidations of dealer stocks.

Dealers in remote areas not convenient to offices of either national or regional financing organizations may find it especially difficult to interest such organizations in handling their business, as finance companies state that their return on such business doesn't justify the added cost ensue in traveling men to remote areas for the necessary checking and collections.

Dealers who may be puzzled by the fact that not too long ago banks seemed eager for any of their business must take into account the following factors in the current situation that is making money tighter:

1. Increased reserve requirements.
2. The call on the banks from large business and industrial organizations, resulting in a tendency on the part of banks to drop financing for smaller types of organizations in order to handle the larger loans requested by the bigger organizations.
3. Competition for the money from other fields, such as automobile dealer financing, which is considered desirable because of the currently very fast and assured turnover.

rate of economic activity required the substantial use of credit, Dodge added:

"Everyone knows that the further prices and debts get out of line, the greater the probability of a drastic correction which will bring severe penalties, particularly to the over-extended borrower."

John W. Snyder, Secretary of the Treasury, intimated in his message to the ABA that reduced tax receipts for this year would preclude any direct government effort to control inflationary tendencies.

St. Louis Firms Hope For More Steel

ST. LOUIS—Both a dark and a bright side to the new f.o.b. mill pricing policy for steel is seen by steel users here.

The "dark" side of the picture rests in the fact that steel users here will find their costs for delivered steel 7 to 10% higher than under the former "basing point" plan. One company figured out that the increase in cost would be \$8 a ton. Producers in some lines said that it would put them in a very difficult competitive position with producers who were nearer the mills.

On the "bright" side of the picture is the possibility that the new pricing policy might produce a greater availability of steel. Basis of this reasoning is that Pennsylvania and Ohio mills would now be more inclined to ship to St. Louis since they could tack the freight costs onto the price, where formerly they had to absorb part of the freight costs if they sold to St. Louis manufacturers.

for eye-appeal economy performance... specify **Supremetaline**



profit-wise dealers choose **the jolly mixer** for tavern—for home

IT'S NEW! Nothing else like it! The Jolly Mixer provides fingertip facilities for mixing simple highballs or fancy cocktails. IT'S ECONOMICAL! Rapid service saves time, all-in-one facilities save space! Ice cubes (20 lbs. per freezing!), bottles, fruit, sugar, utensils, towels, cutting board, bottle de-copper, refuse receptacle—everything in one place!

IT'S PRACTICAL! The Jolly Mixer is engineered to "mix" with other Supremetal underbar equipment and to mix drinks at the same time!

Write TODAY for catalog showing the complete profit-making SUPREMETALINE!



Supremetaline
ALL-STEEL BAR AND BEVERAGE SERVICE EQUIPMENT
SUPREME METAL FABRICATORS, Inc. - BROOKLYN 11, N. Y.

DISTRIBUTOR WANTED

Individual with capital, or established company who will set up separate operation, for distributorship of new line of nationally prominent manufacturer. One franchise issued in each territory. The product is spillage prevention equipment sold direct to food processors, restaurants, butchers, beverage plants, packers, dairies, etc. Investment in merchandise required. Write full details, Box 2864 Air Conditioning & Refrigeration News

Banker's Head Foresees 'Severe' Correction

WASHINGTON, D. C.—Inflationary forces already in effect are beyond the point where the voluntary curbing of bank credit could hope to undo them.

So states Joseph M. Dodge, president of the American Bankers Association, in reply to a Treasury Department request to tighten up credit policies as an anti-inflation measure. Pointing out that the current high

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Patented Grad-U-Matic Air Conditioning Cuts Shrinkage and Spoilage to the Minimum

You can help conserve food with better food preservation equipment. Puffer-Hubbard reach-in refrigeration cabinets reduce shrinkage, spoilage and discoloration losses to the minimum by providing the correct control of temperature, humidity and air circulation. Available in 2 to 8 door models with solid or glass doors.

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- Porcelain Exterior
- Welded Interior Porcelain Lining
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5 BUSH JR. WALL MOUNTED COOLER Compact... high capacity... easy to mount... accessible for service.



6 BUSH STANDARD ICE-MAKING COIL —A wide variety of models available with 12 to 48 pound ratings.



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9 BUSH STANDARD UNIT COOLER Slotted hangers for easy installation. Models to fit all applications.

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